

**GAUHATI UNIVERSITY**  
**Detailed Syllabus of SEC:: 3<sup>rd</sup> semester FYUGP**  
**for Academic session 2024-25**

Sl No	Skill Course Name	Semester	Paper Code	Name of the College
1	Data Analysis	3rd	SEC0300103	Dr. B.K.B. College, Nagaon & Handique Girls' College, Binandi Chandra Medhi College, Halakura College
2	Agricultural Marketing in North East India	3rd	SEC0300203	Goalpara College, Deomorni Degree College
3	Spoken Arabic-III	3rd	SEC0300303	Bholanath College & Moirabari College, Navasakti College, Lokpriya Girls College, C.K College, Hamidabad College, Halakura College, Laharighat College, Pragoti College, Hatidhura College
4	Culture and Heritage of North East India	3rd	SEC0300403	Lalit Chandra Bharali College, Juria College, Hamidabad College, Halakura College
5	Environmental Ethics	3rd	SEC0300503	Handique Girls' College & Rupahi College & B.N. College & Nabajyoti College, Deomorni Degree College, Puthimari College, LOKD College, Halakura College, Rupahi College
6	Film Appreciation	3rd	SEC0300603	Handique Girls' College
7	Folk Tradition and Performing Arts of Western Assam	3rd	SEC0300703	Chilarai College, Laharighat College
8	An Introduction to Solapith Craft in Western Assam	3rd	SEC0300803	Chilarai College
9	Applied History in Policy Making	3rd	SEC0300903	Chilarai College,

				Laharighat College
10	Data Analysis in Social Sciences	3rd	SEC0301003	Pragiyotish College
11	Data Processing and Numerical Analysis	3rd	SEC0301103	
12	Statistics for Data Analysis using Software Package	3rd	SEC0301203	Lalait Chandra Bharali College, LOKD College
13	Database Management System using Microsoft Access	3rd	SEC0301303	Lalait Chandra Bharali College
14	Progammig in Mathematica	3rd	SEC0301403	B. Baruah College
15	NGO Managemant& CSR	3rd	SEC0301503	Rupahi College
16	Making Effective Communication	3rd	SEC0301603	Rupahi College, Moirabari College, Deomorni Degree College, Laharighat College, Hatidhura College
18	Environmental Ethics	3rd		Rupahi College
17	Business Leader/Multi-outlet Retailer	3rd	SEC0301703	Sonapur College
18	Tour Executive	3rd	SEC0301803	Sonapur College, Hatidhura College
19	Creative Writing	3rd	SEC0301903	Sonapur College, Bezara Anchalik College, Halakura College
20	Early Childhood Care and Development	3rd	SEC0302003	Handiqu Girls' College
21	Life Skill Education	3rd	SEC0302103	Beltola College, Moirabari College, Hamidabad College, Pragiyotish College, Navasakti College, Lokpriya Girls College, C.K College, Manikpur Anchalik College, Halakura College, Laharighat College
22	Culture And Heritage Of North East India	3rd	SEC0302203	Juria College, Navasakti College, Lokpriya Girls College, C.K College
23	Early Childhood Care And Development	3rd	SEC0302303	Juria College
24	Srijoni Mulok Sahitya	3rd	SEC0302403	Rajiv Gandhi Memorial College, Navasakti College, Bezara Anchalik College, Lokpriya Girls College, C.K College, ASBC

				College, Rupahi College
25	অনুবাদ-চর্চা	3rd	SEC0302503	Dept. Of Bengali GU
26	Logic and Reasoning	3rd	SEC0302603	Dept. Of Philosophy, GU, FYIMP, Navasakti College, Lokpriya Girls College, C.K College
27	Parliamentary Procedures and Practices	3rd	SEC0302703	Dept. Of Political Science, GU, Hatidhura College, Lumding College, St. Xaviers College, FYIMP, Navasakti College, Lokpriya Girls College, C.K College, ASBC College, Rupahi College
28	Public Opinion and Survey Research	3rd	SEC0302803	Dept. Of Political Science, GU, Lokpriya Girls College, C.K College
29	Spoken Arabic-III	3rd	SEC0302903	Hatidhura College, Rupahi College, Hamidabad College
30	Programming in Maxima	3rd	SEC0303003	M.C. College
31	Creative Writing in Bengali	3rd	SEC0303103	Pragijyotish College
32	Spoken Sanskrit	3rd	SEC0303203	Progoti College
33	Socio-Economic Developments in Post-Independent Assam	3rd	SEC0303303	Progoti College
34	Spoken English	3rd	SEC0303403	Progoti College, Navasakti College, Bezara Anchalik College, Lokpriya Girls College, C.K College
35	Tour Executive	3rd	SEC0303503	Hatidhura College
36	Plant Diversity and Human Welfare	3rd	SEC0303603	J. N. College, D.K. College, Handique Girls College
37	English	3rd	SEC0303703	Hatidhura College, Mangaldai Degree Girls College, Lokpriya Girls College, C.K College

38	Pearl Culture	3rd	SEC0303803	Pragiyotish College
39	Aquarium Fisheries	3rd	SEC0303903	Pragiyotish College
40	Women Enterprinership and Rural Development	3rd	SEC0304003	Hatichong College
41	BuildingAcademicSkillsInEnglishCreal'iveWri'ing	3rd	SEC0304103	Narangi Anchalik Mahavidyalaya
42	MushroomCultivation Technology	3rd	SEC0304203	Mangaldai College, Dept. of Political Science, GU
43	স্কু নীমূলকসািহিত	3rd	SEC0304303	Narangi Anchalik Mahavidyalaya, RGM College, Deomorni Degree College, ASBC College
44	Tour Package Management	3rd	SEC0304403	Tezpur College
45	Content Writing	3rd	SEC0304503	Lakhipur College
46	Fuel Chemistry	3rd	SEC0304603	Barnagar College& Tihu College& GL Choudhury College, Rupahi College
47	Programming in Python	3rd	SEC0304703	Tihu College
48	Translation Studies	3rd	SEC0304803	Dept. of Bodo, GU, LOKD College, Lakhimpur College
49	Ankia Vaona	3rd	SEC0304903	THB College
50	Mathematics	3rd	SEC0305003	Pragiyotish College
51	Life Skill Education	3rd	SEC0305103	Laharighat College, Mangaldai Degree Girls College
52	Applied History in Policy Making	3rd	SEC0305203	Laharighat College
53	Folk Tradition and Performing Arts of Western Assam	3rd	SEC0305303	Laharighat College
54	Making Effective Communication	3rd	SEC0305403	Laharighat College
55	Plant Diversity and Human Welface	3rd	SEC0305503	Handique Girls College& D.K. College
56	Microbial Quality Control in Food and Pharmaceuticals Industry	3rd	SEC0305603	Handique Girls College



57	Agri-Resource Management	3rd	SEC0305703	Dimoria College
58	Aquarium construction and ornamental fish keeping	3rd	SEC0305803	B. Borooh College, Dhing College
59	नेपालीसाहित्यिकपत्रकारिता	3rd	SEC0305903	Tyagbir Hem, Baruah College, Chaiduar College, LOKD College
60	Introduction to Biofertilizers	3rd	SEC0306003	Nalbari College
61	Computer Programming and Circuit Designing	3rd	SEC0306103	Nalbari College
62	Zoology	3rd	SEC0306203	Nalbari College
63	Chemistry in Forensic Science	3rd	SEC0306303	Nalbari College
64	Applied Ethics	3rd	SEC0306403	Pragiyotish College, Navasakti College
65	Parliamentary Procedures and Practices	3rd	SEC0306503	Lumding College, Mangaldai Degree Girls College
66	Role of NCC in Shaping Students Career	3rd	SEC0306603	Raha College
67	Yoga and Health	3rd	SEC0306703	L.G.B. Girls College
68	NSS and Social Work	3rd	SEC0306803	L.G.B. Girls College
69	Culture and Heritage of Assam	3rd	SEC0306903	L.G.B. Girls College
70	Chemistry in Home Care and Laundry	3rd	SEC0307003	Pragiyotish College
71	Green Chemistry and Nano Technology	3rd	SEC0307103	Pragiyotish College
72	Biostatistics an Its Application in Biology	3rd	SEC0307203	M.C. College
73	Semiconductor Devices	3rd	SEC0307303	Morigaon College
74	Programming in Mathematics	3rd	SEC0307403	B. Borooh College& LOKD College
75	Herbal Drug Technology	3rd	SEC0307503	Abhayapuri College
76	Natural Resource Management	3rd	SEC0307603	B.N. College, B.H. College& M.G. College& GL Choudhury College
77	Atma Nirbhar Bharat: Pathways to Self-Reliance&quot;	3rd	SEC0307703	Birjhora Mahavidyalaya
78	Everyday Life Skill for Social Functioning	3rd	SEC0307803	Birjhora Mahavidyalaya
79	Data Analysis using SPSS	3rd	SEC0307903	Nalbari College
80	Fish and Fisheries	3rd	SEC0308003	Lumding College
81	Education	3rd	SEC0308103	Manikpur Anchalik College& Nabajyoti College, Navasakti College
82	Youth and Nation Building	3rd	SEC0308203	Charaibahi

				College & Nabajyoti College & R.G.M. College, Lokpriya Girls College, C.K College
83	Microbial Tools and Techniques	3rd	SEC0308303	Darrang College
84	English For Competitive Exams	3rd	SEC0308403	Mangaldai College
85	Microbiological Analysis of Air and Water	3rd	SEC0308503	Darrang College
86	Driving and Road Safety (Traffic Rules and Regulations)	3rd	SEC0308603	Swahid Smriti Mahavidyalaya
87	Anubad Aaru Anubador Prayog	3rd	SEC0308703	LOKD College
88	Bengali DTP and Proof Reading	3rd	SEC0308803	LOKD College
89	Hindi	3rd	SEC0308903	LOKD College
90	Rural Economy	3rd	SEC0309003	LOKD College, Navasakti College, Lokpriya Girls College, C.K College
91	Environment and Literature	3rd	SEC0309103	LOKD College, Lokpriya Girls College, C.K College
92	Local Administration	3rd	SEC0309203	LOKD College
93	Nursery and Gardening	3rd	SEC0309303	LOKD College
94	Biomolecules and Pesticides Chemistry	3rd	SEC0309403	LOKD College
95	Basic Experimental Skills	3rd	SEC0309503	LOKD College
96	Vermicompost Management	3rd	SEC0309603	LOKD College
97	Mass Media and Communication	3rd	SEC0309703	Mangaldai College
98	Gender Sensitization in India	3rd	SEC0309803	Manikpur Anchalik College
99	Microsoft Excel	3rd	SEC0309903	Nalbari College
100	Freshwater Pearl Culture	3rd	SEC0310003	Bhawanipur College
101	Essentials of Electronic Devices	3rd	SEC0310103	Behali College
102	Assamese Book Editing and Proofreading	3rd	SEC0310203	LGB College, Lokpriya Girls College, C.K College
103	Ethnobotany	3rd	SEC0310303	Dhing College & Nabajyoti College
104	Basics of Scientific Programming using Python	3rd	SEC0310403	Mangaldai College
105	MAT-SEC: LaTeX and HTML(P)	3rd	SEC0310503	Nabajyoti College
106	Functional Arabic	3rd	SEC0310603	Nabajyoti College
107	Food Chemistry	3rd	SEC0310703	Nabajyoti College
108	Electrical and Electronic Skill	3rd	SEC0310803	Nabajyoti College
109	Vermicomposting: Principles and Practices	3rd	SEC0310903	Nabajyoti College
110	Economics	3rd	SEC0311003	Nabajyoti College
111	Culture and Heritage of North East India	3rd	SEC0311103	Nabajyoti College

112	Advanced Creative writing	3rd	SEC0311203	ADP College
113	Database Management System	3rd	SEC0311303	ADP College
114	Applied Optics	3rd	SEC0311403	ADP College, Dhing College
115	Dramatic Performance: Theory and Practice	3rd	SEC0311503	ADP College
116	Basic Understanding of Maps	3rd	SEC0311603	ADP College
117	Entrepreneurship Development	3rd	SEC0311703	ADP College
118	Nursery Techniques and Practices	3rd	SEC0311803	ADP College
119	Green Chemistry	3rd	SEC0311903	ADP College, Dhing College
120	Ornamental Fish and Aquarium Fish Keeping	3rd	SEC0312003	ADP College
121	Political Movements of Assam in Post-Independence Assam.	3rd	SEC0312103	ADP College
122	Surface Ornamentation	3rd	SEC0312203	ADP College
123	Museum Methods	3rd	SEC0312303	GL Choudhury College
124	Children and Human Rights	3rd	SEC0312403	GL Choudhury College
125	Radiation Safety	3rd	SEC0312503	GL Choudhury College
126	R Programming	3rd	SEC0312603	GL Choudhury College
127	Folk Performing Art of Lower Assam	3rd	SEC0312703	Mangaldai College
128	Basics of Nanoscience and Nanotechnology	3rd	SEC0312803	Birjhora Mahavidyalaya
129	Folk Performing Art of Assam	3rd	SEC0312903	Moirabari College
130	Karyalayi Anuvad	3rd	SEC0313003	Moirabari College
131	Indian Parliament- Understanding the devices and Procedures	3rd	SEC0313103	Moirabari College
132	Geography of Environment & Disaster Management	3rd	SEC0313203	Moirabari College
133	Micro Finance – I	3rd	SEC0313303	Moirabari College, C.K College
134	Chemistry of Consumer Products-I/ Applied Chemistry in Everyday Life-I	3rd	SEC0313403	Guwahati College
135	Book Layout and Design	3rd	SEC0313503	Mayang College
136	Patriotism and Early Freedom Fighters	3rd	SEC0313603	Mayang College
137	Vermiculture And Vermicomposting Management	3rd	SEC0313703	Biswanath College
138	Business Correspondence and Report Writing	3rd	SEC0313803	Mayang College, C.K College
139	Srijanimulak Sahitya	3rd	SEC0313903	Rupahi College, Mangaldai Degree Girls College
140	Gender Sensitization	3rd	SEC0314003	Puthimari College
141	Reading and Comprehension Skills	3rd	SEC0314103	Khagarijan College, Misamari College
142	Investment Analysis And Portfolio Management	3rd	SEC0314203	Khagarijan College
143	Artificial Propagation of Plants	3rd	SEC0314303	Chaiduar College

144	Effective Decision Making	3 <sup>rd</sup>	SEC0314403	Handique Girls College
145	আবৃত্তিকলা	3 <sup>rd</sup>	SEC0314503	Dhing College, Mangaldai Degree Girls College, Lokpriya Girls College, C.K College
146	Historical Tourism in North East India	3 <sup>rd</sup>	SEC0314603	Juria College
147	Ornamental Fish & Fisheries	3 <sup>rd</sup>	SEC0314703	Nalbari College
148	Physics Workshop Skills	3 <sup>rd</sup>	SEC0314803	Handique Girls College
149	Applied Chemistry in Everyday Life-II	3 <sup>rd</sup>	SEC0314903	Guwahati College
150	Computer Fundamentals and Mathematical Computation	3 <sup>rd</sup>	SEC0315003	Pragiyotish College
151	Women & Politics in India	3 <sup>rd</sup>	SEC0315103	B.H. College
152	अनुवाद-कलाऔरव्यावहारिकअनुवादकेविविधआयाम	3 <sup>rd</sup>	SEC0315203	Dept. of Hindi, G.U., LOKD College
153	Spoken Arabic for Placement	3 <sup>rd</sup>	SEC0315303	Mangaldai College
154	Small Poultry Farming	3 <sup>rd</sup>	SEC0315403	ADP College
155	E-Filing of Returns	3 <sup>rd</sup>	SEC0315503	St. Xaviers College
156	Public Speaking Skill	3 <sup>rd</sup>	SEC0315603	LOKD College
157	Social Demography	3 <sup>rd</sup>	SEC0315703	LOKD College
158	Managerial Economics	3 <sup>rd</sup>	SEC0315803	Ratnapith College
159	Data Processing and Analysis	3 <sup>rd</sup>	SEC0315903	Darang College
160	Art of Acting-III	3 <sup>rd</sup>	SEC0316003	FYIMP
161	Abritti Kala(Art of Recitation)	3 <sup>rd</sup>	SEC0316103	FYIMP
162	BuildingAcademicSkillsInEnglishWriting	3 <sup>rd</sup>	SEC0316203	FYIMP
163	Computer Algebra and Related Software	3 <sup>rd</sup>	SEC0316303	FYIMP
164	2D Cartoon Design	3 <sup>rd</sup>	SEC0316403	FYIMP
165	Heritage of Assam	3 <sup>rd</sup>	SEC0316503	FYIMP

166	Reading Films	3 <sup>rd</sup>	SEC0316603	FYIMP
167	Sanskrit and Indian Knowledge System	3 <sup>rd</sup>	SEC0316703	FYIMP
168	Vermicomposting and Organic Farming	3 <sup>rd</sup>	SEC0316803	FYIMP
169	Baresahariya Bhaona	3 <sup>rd</sup>	SEC0316903	LOKD College, THB College
170	Basic of Green Chemistry	3 <sup>rd</sup>	SEC0317003	GU
171	Pesticide Chemistry	3 <sup>rd</sup>	SEC0317103	GU
172	Chemistry of Cosmetics & Perfumes	3 <sup>rd</sup>	SEC0317203	GU
173	Writing Biodata And Facing An Interview	3 <sup>rd</sup>	SEC0317303	Udali College
174	Academic Writing	3 <sup>rd</sup>	SEC0317403	ASBC College
175	ICT Hardware	3 <sup>rd</sup>	SEC0317503	Rupahi College
176	Learning English As a Second Language	3 <sup>rd</sup>	SEC0317603	Dhing College
177	Thematic Cartography	3 <sup>rd</sup>	SEC0317703	Dhing College
178	Mahapurusiya Nat aru Baresohoria/Hajari Bhaona	3 <sup>rd</sup>	SEC0317803	THB College
179	Tradition of Oral History and Culture in Western Assam	3 <sup>rd</sup>	SEC0317903	Chilarai College
180	Communication Skill in Persian	3 <sup>rd</sup>	SEC0318103	FYIMP
181	अनुवाद-कला और व्यावहारिक अनुवाद के विविध आयाम	3 <sup>rd</sup>	SEC0318203	FYIMP

## **Serial No-1**

### **Data Analysis**

**SEC0300103**

**(By B.K.B College)**

**Credit: 3**(Theory: 2 and Practical: 1)

**Total Marks: 75**

#### **Course Description:**

Statistical tools and techniques are one of the basic necessities for analytical research works. This course is designed to teach the students about different statistical tools used in analytical research studies and its importance in answering different real world economic problems. Students will learn how to deal with different statistical techniques and tools, which are appropriate in which situation, interpretation of the results extracted from those techniques, etc.

#### **Course Objective:**

The course is developed and designed in such a way that the students can get the knowledge about 'Data Analysis in Research Works' as a future carrier option for them. They can practice their role as Data Analytics, Field Investigator, Research Associate, Research Assistant, etc. in near future.

#### **Graduate Attributes:**

1. This course helps students in understanding use of data in research, processes involved in collection of data, presentation and summarization of data using computer softwares like MS-Excel, SPSS, etc.
2. Students will learn theoretical knowledge and be involved practically in preparation of questionnaires/interview schedules, collection of both primary and secondary data and its presentation.
3. Students will learn about theoretical knowledge on different types of Statistical Tools used to analyse data for drawing statistical inferences and practical knowledge about data analysis using different statistical software packages (like – SPSS, STATA, etc.).
4. Students will also gather a practical knowledge about preparation of a report on collected data.

5. To prepare the students for the 4<sup>th</sup> Year Honours Program (in Research) under FYUGP and to encourage them to research in higher level of studies.

### **Distribution of Marks:**

- |                                     |                        |
|-------------------------------------|------------------------|
| <b>1. End Semester Examination:</b> | <b>Total Marks: 30</b> |
| <b>2. Sessional Examination:</b>    | <b>Total Marks: 20</b> |
| <b>3. Practical:</b>                | <b>Total Marks: 25</b> |

End Semester and Sessional Examination will be held following the academic calendar of the university covering the syllabus of the course and both will be theory papers in nature. The questions will be set following the guidelines of the university in both the examinations.

Each candidate is required to complete and submit a project work as Practical based on a self-designed interview schedule/questionnaire and collected data to be evaluated via Project Report and Seminar Presentation. (Project Report – 20 and Presentation – 05, Total – 25)

### **Course Content:**

#### **Unit I:**

Meaning and Significance of Research, Use and Importance of Data in Research, Types of Data and its Collection Methods (Census and Different Sampling Methods), Questionnaire and Interview Schedule.

#### **Unit II:**

Data Entry in Software like MS-Excel, STATA, etc., Creating Charts/Tables and Diagrams in MS-Excel/STATA – bar, line, pie, scatter, radar, bubble diagrams, etc.

#### **Unit II:**

Measures of Central Tendency and Dispersion (Mean: Arithmetic Mean, Geometric Mean and Harmonic Mean; Median; Mode; Range, Mean Deviation, Quartile Deviations and Standard Deviation), Correlation (Pearson Correlation Co-efficient and Spearman's Rank Correlation Co-efficient).

#### **Unit IV:**

Regression Analysis; Ordinary Least Squares Method; Descriptive Analysis, Correlation Analysis and Regression Analysis in Software like MS-Excel, STATA, etc.

### **Reading List:**

1. Dr.S.P. Gupta, Statistical Methods, Sultan Chand & Sons.
2. S.C. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics, Sultan Chand & Sons.
3. Webtech Solutions Inc., Mastering Microsoft Excel Functions and Formulas.
4. P.H. Karmel and M. Polasek (1978), Applied Statistics for Economists, 4th edition, Pitman.

5. Damodar N. Gujarati and Sangeetha, Basic Econometrics, Tata McGraw-Hill Education Private Limited.
6. Damodar Gujarati, Econometrics by Example, Palgrave Macmillan

**Serial No-1**

**Data Analysis**

**SEC0300103**

**(By Handique Girls College)**



**FYUGP 3rd Semester SEC**  
**Data Analysis**

Course Description: This course discusses how data can be summarized for drawing statistical inferences.

**Course Outline:**

1. Research Methodology. Types of Research. .
2. Univariate frequency distributions. Arithmetic Mean, Geometric Mean, Harmonic Mean. Range; skewness and kurtosis.
3. Correlation, types of Correlation, Correlation Coefficient.
4. Regression analysis: Simple linear regression, Multiple linear regression.

**Readings:**

3. Correlation, types of Correlation, Correlation Coefficient.
4. Regression analysis: Simple linear regression, Multiple linear regression.

**Readings:**

1. P.H. Karmel and M. Polasek (1978), Applied Statistics for Economic Analysis, 2nd edition, Pitman.
2. M.R. Spiegel (2003), Theory and Problems of Probability and Statistics (Schaum's Series).

**Serial No-2**

**Agricultural Marketing In North East India**

**SEC0300203**

**(By Goalpara College)**



**SEC COURSE**

**SEMESTER:- 3<sup>RD</sup> SEMESTER**

**COURSE NAME:- AGRICULTURAL MARKETING IN NORTH-EAS**

**CREDIT :- 3 CREDITS**

**CREDIT DISTRIBUTION:- THEORY- 2 CREDITS + PRACTICAL-1**

**PAPER OFFERED BY:- GOALPARA COLLEGE**

**CONTENTS OF PAPER**

**UNIT-1: MEANING AND SCOPE :**

Meaning, definitions, Components of market, Market Structure, Market performance, importance of Agricultural marketing in economic development.

**UNIT-2:- CLASSIFICATION OF MARKETS:**

Basis of Location, Area Coverage, time span, Volume of transaction, nature of trade commodities, competition, population, public intervention.

**UNIT-3:- FUNCTIONS OF MARKETING:**

Meaning-Assembling-Grading and Standardization-Transportation-Storage-process Distribution-Buying and Selling-Financing- Risk bearing- Marketing intelligence

**UNIT-4:- QUALITY CONTROL:-**

Agricultural products-AGMARK-CODEX, Need of CODEX certification Relevance

**UNIT-5: REMEDIAL MEASURES :-**

Basis of Location, Area Coverage, time span, Volume of transaction, nature of trade commodities, competition, population, public intervention.

**UNIT-3:- FUNCTIONS OF MARKETING:**

Meaning-Assembling-Grading and Standardization-Transportation-Storage-process Distribution-Buying and Selling-Financing- Risk bearing- Marketing intelligence

**UNIT-4:- QUALITY CONTROL:-**

Agricultural products-AGMARK-CODEX, Need of CODEX certification Relevance

**UNIT-5:- REMEDIAL MEASURES :-**

Regulated Markets-definition-Important features of regulated markets-functions-defects- Measures by Government to improve Agricultural Marketing.

**UNIT-6:- A Project Prepare by Students go through field study( Credit-1, Practical)**

Reference:

1. Acharya S.S and Agarwal N.L, 2021, Agricultural Marketing in India. Oxford & Publishing Co.Pvt.Ltd. New Delhi
2. Kahlon, A.S and Tyagi.D S, 1983 Agricultural Price Policy in India. Allied Publishers Pvt. Ltd., New Delhi.
3. Kulkarni, K R.1964, Agricultural Marketing in India. The Co-operators Books Mumbai.
4. Mamoria, C.B. and Joshi. R L.1995, Principles and Practices of Marketing in India. Kitab Mahal, Allahabad

**Serial No-3**

**Spoken Arabic-III**

**SEC0300303**

**(By Hatidhura College)**



**Syllabus**  
**Skill Enhancement Courses (FYUGP)**  
**B. A. 3rd Semester**  
**Spoken Arabic-III**

**Paper Code: SEC0300303**

Total credits=3

Total Marks=75

Internal-1 = 20, Internal-2 = 30, Practical = 25,

**Unit-I: Fundamental of Arabic Grammar**

Definite and Indefinite  
Pronouns: Detached and Attached  
Relative pronouns  
Prepositions

**Unit-II: Vocabulary Enrichment**

Mankind and kinship  
Works and Money  
Technology  
Medicine, Diseases and Hospital

**Unit-III: Conversation Practice**

Conversation between two friends

Technology

Medicine, Diseases and Hospital

**Unit-III: Conversation Practice**

Conversation between two friends

Conversation in the classroom

Conversation in the office

**Unit-IV: Conversation Practice**

Conversation with a doctor

Conversation in the market

Practice of frequently used phrases

**Course Outcome:**

CO1: The course content enables the student to apply the basics of Arabic

CO2: The course will assist the students to enrich Arabic vocabulary with words, money, technology, medicine, diseases and hospital etc.

CO3: The course will acquaint the students with the basic Arabic conversation

CO4: The students will learn how to use Arabic words in their practical

**Reference Books:**

1. Prof. Rafi'el- Imad Faynan : The Essential Arabic
2. Siddique Nadwi, Junaid Nadwi and Zia Uddin Khan: Kunju Al-lug
3. S. A. Rahman, Teach yourself Arabic
4. Muhammad Hyder Ali: Asomiya Arabi Byakaron
5. S.A. Rahman, Lets Speak Arabic
6. Tayyab Urfi Alavi & Kamil-Ibn- Aqil : How to learn spoken Arabic

**Skill Enhancement Course (SEC)**  
**FYUGP- 3<sup>rd</sup> Semester**  
**Paper Name: Spoken Sanskrit**

Course Designed by-  
D  
P

**Total Credit = 03** (Theory Credit = 02 & Practical Credit = 01)  
**Total Marks = 75** (Theory = 30, Internal assessment = 20 & Practical = 25)  
**No. of Theory Classes = 30, No. of Practical Classes = 15**

Unit No.	Unit Content	Credit
I	<b>Declension and Conjugation.</b> ➤ Sabdarūpa: Svarānta, Vyañjanānta, Sarvanām, Saṁkhyā ; ➤ Dhāturūpa: bhu, gam, dṛs, as, kr, sru, ni, han, path, khād, pach, bad, pā, likh, jña.	1
II	<b>General Grammar.</b> ➤ Kāraka-Vibhakti ➤ Suffixes: ktvāc, lyap, tumun, ktavatu, satṛ, sānac.	1
III	<b>Practical.</b> Simple Sanskrit Spoken Skill ➤ Use of Svarānta, Vyanjanānta, Sarvanām and Saṁkhyā Savda in simple Sanskrit sentence. ➤ Use of Simple Sanskrit verbs in lat. lot. long and lrt.	1

III	<b>Practical.</b> Simple Sanskrit Spoken Skill ➤ Use of Svarānta, Vyanjanānta, Sarvanām and Saṁkhyā Savda in simple Sanskrit sentence. ➤ Use of Simple Sanskrit verbs in lat, lot, long and lrt. ➤ Use of Kāraka-Vibhakti, Sapta 'Ka' kār. ➤ Use of Pronouns- tat, etat, yat.	1
-----	--	---

**Reading List:**

1. Sarma Rajendra Nath, Sanskrit Vyakaran Surabhi, Chandra Prakash, Panbajar
2. Sastri Khagendra Nath, Sanskrit Prabesh Vyakaran, Chandra Prakash, Panbajar
3. Sarma Sri Narayan Chandra, Sanskrit Vyakaran Pradip, Ashok Publication, Pa
4. Sarma Giridhar, Sanskrit Grammar composition and Translation, Bina Library

**Course Objectives:**

- a) Students will gain knowledge about the formation of Sanskrit words and verbs
- b) Students will acquire the basic knowledge of Sanskrit Case-ending.
- c) Students will gain knowledge about the simple Sanskrit speaking process in d
- d) Students will acquire the basic knowledge of the use of Sanskrit suffixes.

**Learning Outcomes:**

After going through this course students will be able.

- a) to grasp the basic concept of Sanskrit Grammar.
- b) to understand the importance of Sanskrit Grammar in any type of Linguistic S
- c) to grasp the basic techniques of translation studies.
- d) to grasp the basic use of Kāraka-Vibhakti
- e) to develop Sanskrit speaking skill for day to day life.

**Spoken Arabic - III**  
**Arabic – SEC**  
**B.A. 3<sup>rd</sup> Semester (FYUGP)**

---

**Unit-I: Fundamental of Arabic Grammar**

Definite and Indefinite

Pronouns: Detached and Attached

Relative pronouns

Prepositions

**Unit-II: Vocabulary Enrichment**

Mankind and kinship

Works and Money

Technology

Medicine, Diseases and Hospital

**Unit-III: Conversation Practice**

Conversation in the classroom

Conversation in the office

**Unit-IV: Conversation Practice**

Conversation with a doctor

Conversation in the market

Practice of frequently used phrases

**Reference Books:**

1. Prof. Rafi'el- Imad Faynan: The Essential Arabic
2. Siddique Nadwi, Junaid Nadwi and Zia uddin Khan: F
3. S. A. Rahman, Teach yourself Arabic
4. Muhammad Hyder Ali: Asomiya Arobi Byakaron
5. S.A. Rahman, Lets Speak Arabic
6. Tayyab Urfi Alavi & Kamil-Ibn- Aqil: How to learn :

**Serial No-3**

**Spoken Arabic-III**

**SEC0300303**

**(By Bholanath College)**

Total credits=3

Total Marks=100

Theory=50, Practical=30, Internal=20

Theory classes: 25 classes (one hour each-25hrs)

Practical classes: 10 classes( two hour each-20 hrs)

**Unit-I: Fundamental of Arabic Grammar**

Definite and Indefinite

Pronouns: Detached and Attached

Relative pronouns

Prepositions

**Unit-II: Vocabulary Enrichment**

Mankind and kinship

Works and Money

Technology

Medicine, Diseases and Hospital

**Unit-III: Conversation Practice**

Conversation between two friends

Conversation in the classroom

Conversation in the office

**Unit-IV: Conversation Practice**

Conversation with a doctor

Conversation in the market

Practice of frequently used phrases

**Course Outcome:**

CO1: The course content enables the student to **apply** the basics of Arabic grammar.



CO2: The course will assist the students to enrich Arabic vocabulary related to mankind, kinship, works, money, technology, medicine, diseases and hospital etc.

CO3: The course will acquaint the students with the basic Arabic conversation with each other.

CO4: The students will learn how to use Arabic words in their practical lives.

**Reference Books:**

1. Prof. Rafi'el- Imad Faynan: The Essential Arabic
2. Siddique Nadwi, Junaid Nadwi and Zia uddin Khan: Kunju Al-lugat
3. S. A. Rahman, Teach yourself Arabic
4. Muhammad Hyder Ali: Asomiya Arobi Byakaron
5. S.A. Rahman, Lets Speak Arabic
6. Tayyab Urfi Alavi & Kamil-Ibn- Aqil: How to learn spoken Arabic

Serial No-3

## Spoken Arabic-III

SEC0300303

(By Moirabari College)

**SEC (Skill Enhancement Course)**

**Dept. of Arabic, Moirabari College**

**Class :- 3<sup>rd</sup> Semester (FYUGP)/2024**

**Paper Title :- Spoken Arabic-III**

**Paper Code :- SEC 0300603**

**Total Credit:03  
Total Mark:75**

**End Semester Examination:  
Sessional Examination:  
Practical:25**

### **Unit-I : Vocabulary Enrichment**

- a. Parts of Body, Dresses, Manner & Behaviour
- b. Nature, Seasons, Day, Week, Months
- c. Plants, Vegetables, Flowers, Fruits
- d. Numbers, Time, Date, Direction

### **Unit-II : Basic Structure of Sentence**

- a. Simple Sentences Related to Noun
- b. Simple Sentences Related to Verb
- c. Simple Sentences Related to Participle
- d. Proverb and Maxims

- d. Typing Arabic Alphabets

### **Unit-IV : Conversation Practices**

- a. Conversation at Home
- b. Conversation at Class Room
- c. Conversation at Market
- d. Conversation at Office



### **Course Outcome:**

- Co 1 : Through the vocabulary enrichment the students will be enabled enough respect of words and then they will able to make simple sentences to spe Arabic Easily.
- Co 2 : The students will make simple sentences related to Noun, Verb & Parti by Learning the basic structure of sentences & they also have the knowledge of Arabic Proverb and Maxims.
- Co 3 : This course will enhance the students the power of Reading, Writing & Typing skills through regular practice of Arabic language.
- Co 4 : Through the conversation practices the students will be more efficient i speaking Arabic in their daily lives.

### **Reading References:**

1. Teach Yourself Arabic ( A Modern and Step by Step Approach), By-S Rahman
2. A textbook on Spoken Arabic, By-Abdus Sagir Ahmed
3. Lets Speak Arabic, By-S.A. Rahman
4. Learn Arabic Through English, By-Hazrat Hasanuzzaman
5. A Grammar of Arabic Language, By Dewan Abdul Kadir
6. The Essential Arabic, By-Dr. Rafiqul Islam, Edgewood

**Serial No-3**

**Spoken Arabic-III**

**SEC0300303**

**(By Rupahi College)**

**Syllabus**  
**Skill Enhancement Course (FYUGP)**  
B.A 3<sup>RD</sup> Semester  
Title of the Paper : Spoken Arabic -III  
Paper Code : SEC 03

**Distribution of Marks:**

1. End Semester Examination : Total Marks : 45
2. Sessional Examination : Total Marks :30
  - Theory Credit :3
  - No.of Required Classes : 45 hours

**Unit-I: Fundamental of Arabic Grammar**

Definite and indefinite  
Pronouns : Detached and Attached  
Relative Pronouns  
Prepositions

**Unit - II: Vocabulary Enrichment**

Mankind and Kinship  
Works and Money

**Unit - III: Conversation Practice**

Conversation between two friends  
Conversation in the classroom  
Conversation in the office

**Unit - IV: Conversation practice**

Conversation with Doctor

**Course Outcome :**

- C01: The course content enables the student to **Apply** the basics of Arabic  
C02: The Course will assist the students to enrich Arabic Vocabulary related to Kinship, Work, Money, Technology, Medicine, Diseases and Hospital etc.  
C03: The course will acquaint the students with the basics of Arabic conversation and other.  
C04: The Students will learn how to use Arabic words in their practical life.

**Reference Books:**

1. Prof. Rafi'el- Imad Faynan : The Essential Arabic
2. Siddique Nadwi, Junaid Nadwi and Zia uddin Khan : Kunju Al- Luga
3. S.A. Rahman, Teach yourself Arabic
4. Muhammad Hyder Ali: Asomiya Arobi Byakaron

**Serial No-4**

**Culture and Heritage of North East India**

**SEC0300403**

**(By LCB College)**

**Target Group: Open for all (ARTS / SCIENCE / COMMERCE)**

**Theory = 2 credit, Practical = 1 credit**

**Total Mark -75**

**Theory- 30      Practical -- 45**

**Learning Objective:**This course enables students to explore various aspects of the cultural heritage and cultural diversity to historical perspective that discusses numerous the cultural practices that have evolved over the centuries. They will acquire knowledge of the changing socio-cultural scenario of North East. Additionally gather knowledge about the multifaceted cultural heritage, forms and expressions like performing arts, fairs and festivals

- a) To introduce the students to the core aspects of the Culture of North East.
- b) To make them aware of the multiple facets of Assamese culture
- c) To sensitise students to the rich culture and heritage of North East
- d) To enable the students to understand the importance of our heritage
- e) To encourage the students to view our traditions and values in the right perspective which will help them appreciate diverse cultural values.

**Course Outcomes:**

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

- a) While discussing history and culture students will be able to recognize the history of North-East culture as part of the large story of humankind and civilisation over the ages.
- b) Get to know the diversity of our cultural heritage to understand and appreciate the legacy. It will also provide them with a sense of the expanse of time over which this legacy has grown.
- c) To explain several historical currents that have harmonized to create a rich multicultural society.

## Unit wise Syllabus

### Unit—I (5 hours)

Mark-7

#### Culture and Heritage

- a) Definition and Characteristics of Culture
- b) Tangible and intangible heritage, Tangible, intangible Oral and Living traditions.
- c) Tai-Phake or Phakial culture

### Unit—II ( 5 hours)

Mark-5

#### Colonial Heritage and UNESCO Heritage Sites in Northeast India,

- a) Satribari Christian Hospital, 1926,
- b) Assam Medical College, Digboi Oil Refinery, Charaideo Maidams. Garo-Hills
- c) Apatani Cultural landscape,

### Unit—III( 6 hours)

Mark- 9

#### Traditional Performing Art as Intangible Heritage

- a) Folk Dance-- Bagurumba Hozagiri ,Wangala ,Bamboo dance ,Zeliang dance,*DholDholak Chalom*.
- c) Folk Theatre: Oja Pali, Dhuliya and Khuliya-*bhaoriya*,  
Puppetry, -Kushan Gan Shumang Leela , Bharigaan. Gahon
- d) Folk Song- Goalpara folk song, Nongthang Leima' Lullabies,
- e) Oral Folk Literature-Lyrics, Ballads, DĀKAR BACHAN, Folk tales.

### Unit—IV ( 6 hours)

Mark- 9

#### Neo-Vaishnavite Cultures– Majuli

- a) Satra and Namghar
- b) Ankiya Bhaona and Satriya Nritya

### PRACTICAL ( 22 hours) Mark-45

- Assignments
- Field work
- Project work

- **Presentation**
- **Report writing**
- **Preparation of questionnaire**

#### **References:**

- Barua B.K.: A Cultural History of Assam Baruah,
- Sarma, S.N.: The Neo-Vaiṣṇavite Movement and the Satra Institution of Assam Department of Publication, Gauhati University, 1966
- Sarma, S.N.: Socio Economic and Cultural History of Medieval Assam, Guwahati, 1989
- Nath, R.M.: The Background of Assamese Culture, Guwahati, 1978 Sarma,
- Sarma.C .P. : Architecture of Assam, Delhi - 1988
- Ahmed, Kamaluddin: The Art and Architecture of Assam, Spectrum Publication, Guwahati, 1994.
- Bhattacharya, P.: Tourism in Assam, BaniMandir, Guwahati, 2004
- Neog, M. : Pavitra Asom, LBS, Guwahati : Asamiya Sanskritir Ruprekha, Guwahati – 1970
- Boruah, P. : Chitra-Bichitra Asom, Guwahati, 2003; Taher & Ahmed : Geography of North East India, Mani Manik Prakash, Guwahati, 2010.
- Gogoi, Atanu: Paryatan Aru Uttar Paranuchal, Bani Mandir, Guwahati, 2000
- Kolkman Rene: Tribal Architecture in North-East India, 2014
- [Basa](#) Kishor Kumar, B.K. Medhi · 2008 : Intangible Cultural Heritage of Assam
- **Mahanta Pradip Jyoti (ed): Vainava Heritage of Assam**

Serial No-4

## Culture and Heritage of North East India

SEC0300403

(By Juria College)

### FORMAT OF SEC COURSE:

**1. Semester: III**

2. Course Name: 1). CULTURE AND HERITAGE OF NORTH EAST INDIA Course Code: (SEC0300403)
3. Credit: 3 Credits
4. Credit Distribution (Theory/Practical): Theory: 2 Credits, Practical 1 Credit
5. Content (Unit wise with a unit title):

Unit-1: Culture and Heritage.

Unit-2: Colonial Heritage and UNESCO Heritage Sites in North East India.

Unit-3: Traditional Performing Art as intangible Heritage.

Unit-4: Neo- Vashnaivite Culture- Majuli

Practical- 1 credit

6. Recommended Books/References: Sharma, S.N.; Socio-Economic and Cultural History of Medieval Assam.
7. Paper Offered by: **Juria College**

**8. Semester: III**

9. Course Name: 1). EARLY CHILDHOOD CARE AND DEVELOPMENT  
Course Code: (SEC0302003)
10. Credit: 3 Credits
11. Credit Distribution (Theory/Practical): Theory: 2 Credits, Practical 1 Credit
12. Content (Unit wise with a unit title):

Unit-1: Core Concepts in ECCE

Unit-2: Context of Care and Development

Practical- 1 credit

13. Recommended Books/References: Aggarwal, J.C. (2007); Early Childhood Care and Education, Principles and Practices.
14. Paper Offered by: **Juria College**

**Serial No-5**  
**Environmental Ethics**  
**SEC0300503**  
**(By Handique Girls College)**

Course Objectives:

- To provide an understanding of the environmental ethics
- To create environmental awareness among the students
- To rethink and rectify the lapses in our relationship with nature
- To provide insights among students about environment and politics

Learning outcome:

Students will be able to understand the environmental problems and will learn environmental ethics for the protection of environment and to use natural resources in a sustainable manner.

Particulars of course designer:

Miss Niminita Saikia, Department of Political Science, Handique Girls' College, Guwahati

Dr. Pallavi Deka, Department of Political Science, Handique Girls' College, Guwahati

**Unit 1: Understanding Environmental Ethics**

- a. Concept of environmental ethics
- b. Importance of environmental ethics

**Unit 2: Environmental issues**

- a. Pollution- various types, sources and control measures

**Unit 3: Environment and Politics**

- a. Ecologism
- b. Ecofeminism
- c. Sustainable Development

Project/ Assignment

**1. Suggested Readings:**

- Attfield. Robin, *Environmental Ethics A Very Short Introduction*, Oxford, 2019



- Baker. Susan, *Sustainable Development*, Routledge, New York, 2006
- Basak. Anindita, *Environmental Studies*, Pearson, 2009
- Carter. Neil, *The Politics of the Environment: Ideas, Activism, Policy*, Cambridge University Press, New York, 2007
- Heywood. Andrew, *Political Ideologies An Introduction*, Red Globe, 2022
- Kaushik. Anubha & Kaushik, C.P., *Perspectives in Environmental Studies*, New Age International Publishers, 2018
- Raju. Parlapalli, Anand. Konkala, Palve. Anil. E. & Kumar. Ashok, *Environmental Principles and Ethics*, AG Publishing House, 2022
- Shiva. Vandana, *Ecofeminism*, London, Zed Books, 1984

2. Paper offered by: Department of Political Science, Handique Girls' College, Guwahati, 781001

**Serial No-5**  
**Environmental Ethics**  
**SEC0300503**  
**(By Rupahi College)**

**Subject: Philosophy**  
**Semester: III**  
**Course Name: Environmental Ethics (SEC)**  
**Credit: 3 Credits**  
**Credit Distribution: Theory/ Practical (2+1)**  
**Part-A: Theory (2 Credit): 50 marks**

<b>Unit</b>	<b>Content</b>	
<b>Unit-I</b>	Ethics and Environmental Ethics: Nature of Ethics: Normative Ethics, Meta Ethics and Applied Ethics, Nature and Scope of Environmental Ethics, Relation between Ethics, Applied Ethics and Environmental Ethics.	<b>25</b>
<b>Unit-II</b>	Theories of Environmental Ethics: Anthropocentrism: Weak and strong Eco-centrism: Land Ethics, Deep Ecology Bio-Centrism: Biodiversity and Animal Rights	<b>25</b>

**Part B- Practical (1 Credit): 25**

(b) Visit to local polluted sites like rural, urban industrial and agricultural sites to document the environmental crisis.

(c) Prepare a report on environmental assets of local plants, insects, birds, and animals.

---

**Books Recommended:**

Croall, Stephen & William Rankin. (1994). *Ecology for Beginners*. Icon Books

---

**Books Recommended:**

Croall, Stephen & William Rankin. (1994). *Ecology for Beginners*. Icon Books

Gadgil, M. & G. Ramachandra (1993). *This fissured Land: an ecological history of India*. California Press.

Naess, Arne. (1973). "The Shallow and the Deep Ecology Movement". *Environ*

Norton, B.G. (1984). *Environmental Ethics and weak anthropocentrism*. *Env*

Roy, Hemanta Kumar. (2002). *Paribeshiya Nitividya*. Union Book Publication, Guwahati-1.

Singer, Peter. (1975). *Animal Liberation: A New Ethics for Our Treatment of Animals*. Collins.

## Serial No-5

### Environmental Ethics

SEC0300503

(By Bholanath College)

#### Distribution of Marks:

1) End Semester Examination: Total Marks:	30
2) Sessional Examination: Total Marks:	20
3) Practical: Total Marks:	25

#### Learning objectives

- Understand the basic concept of ethics and environmental ethics.
- Learn the theories of environmental ethics.
- Develop their interest to solve environmental issues.

#### Learning Outcome:

**CO 1: Comprehensive Understanding of Environmental Ethics:** Students acquire a comprehensive understanding of diverse philosophical perspectives concerning nature of ethics and environmental ethics, and human's ethical responsibilities towards the environment.

**CO 2: Critical Analysis and Application of Environmental Ethics:** Develop the ability to critically analyze environmental issues through philosophical lenses and apply ethical theories to contemporary environmental problems.

**CO 3: Critical Analysis and Problem Solving:** Enhancing critical thinking skills to evaluate complex environmental problems through ethical lenses, enabling students to propose well-reasoned solutions and ethical guidelines for sustainable practices.

#### Main Syllabus:

Unit No.	Syllabus	Class Hour	Allotted Marks
I Ethics and Environmental Ethics	1.1 Nature of Ethics: Normative Ethics, Meta-Ethics and Applied Ethics 1.2 Nature and Scope of Environmental Ethics	10	17
II Theories of Environmental Ethics	3.1 Anthropocentrism: Weak and Strong 3.2 Biocentrism: Biodiversity and Animal Rights	10	17
III Environmental Issues	2.1 Various types of Pollution 2.2 Sources and Control Measures of Pollution	10	16

## Part B (Practical)

Hours- 30

Marks: 25

Students will submit a report (word limit: 2,000-3,000) on the basis of the following guidelines:

- a) Visit to local areas to study and document ecosystem like pond, rivers, hill, forest, grassland etc.
- b) Visit to local polluted sites like urban, rural, industrial and agricultural areas to document the environmental crises.
- c) Prepare a report on environmental assets of local plants, insects, birds and animals.

### Reference Books:

- 1) Atfield. Robin, *Environmental Ethics A Very Short Introduction*, Oxford,2019
- 2) Baker. Susan. *Sustainable Development*, Routledge, New-York,2006
- 3) Croall, Stephen & William Rankin. (1994). *Ecology for Beginners*. Icon Books Ltd, London. Gadgil,
- 4) Mill, John Stuart. (1874). *On Nature*. Lancaster University Press.
- 5) Passmore, John A. *Man's Responsibility for Nature*, Gerald Duckworth & Co. Limited, London, 1980 development." OUP Catalogue.
- 6) Pojman, Louis P. (2016). *Environmental Ethics: Readings in Theory and Application*. Wadsworth Publishing Company, California.

### Additional Study Materials:

- 1) Singer, Peter. (1975). *Animal Liberation: A New Ethics for Our Treatment of Animals*. Harper Collins.

Particulars of course designed by,

Namita  
Pawegam  
Dr. Jayda Begum

## **Serial No-5**

### **Environmental Ethics**

**SEC0300503**

**(By Nabajyoti College)**

#### **SKILL ENHANCEMENT COURSE (SEC)**

**Subject: Philosophy**

**Course Title: Environmental Ethics**

**Credit: 3 (Marks: 75)**

- **Theory Credit:** 02
- **Practical Credit:** 01
- **No of Required Classes:** 30 hours

#### **Assessments & distribution of marks**

- **Written examination (40 marks)**
- **Group Discussion and presentation (10 marks)**
- **Assignment and case study (25 marks)**

#### **Objective & Outcomes of the course-**

##### **Learning Objectives:**

1. To understand the concept of Environmental Ethics

**Learning Outcomes:**

- Students will gain a foundational understanding of environmental ethics.
- Students be able to develop critical thinking skills in ethics.
- Students be able to apply ethical principles to real-world environmental challenges.

**Course Outlines:**

Unit 1: Introduction to Environmental Ethics (10 Marks)

- Anthropocentrism and non-anthropocentrism
- Consequentialism versus deontology
- Virtue ethics versus environmental ethics

Unit 3: Environmental Issues and Ethical concerns (20 Marks)

- Climate change and Justice
- Biodiversity and conservation
- Pollution and sustainability

Unit 4: Case studies and Applications (25 Marks)

- Real life scenarios and ethical dilemmas
- Group discussions and presentations

**Recommended Books:**

- Modern Environmental Ethics: A Critical Survey

Author: Arpana Dhar Das

**Serial No-5**  
**Environmental Ethics**  
**SEC0300503**  
**(By LOKD College)**

**SYLLABUS**  
**SKILL ENHANCEMENT COURSE (FYUGP)**  
**B.A 3<sup>rd</sup> Semester**  
**Title of the paper: Environmental Ethics.**  
**Subject: Philosophy**  
**Total Credit – 3, Theory – 2 , Practical – 1**

- **Course Description:**

Environmental ethics explores the ethical dimensions of human interaction with the natural Environment. It examines various philosophical approaches to understanding the moral relationship between humans and natural world, including deep ecology, ecofeminism, Biocentrism and Anthropocentrism. Students will critically engage with key issues such as environmental justice, sustainability, conservation, biodiversity, climate change and the rights of the non-human entities.
- **Course Objectives: -**

The course aims to: -
- **Understanding Ethical Theories:**

Students will explore various ethical theories including

- **Understanding Ethical Theories:**

Students will explore various ethical theories including utilitarianism, deontology and virtue ethics and how they apply to environmental issues.

**Application of Ethics:**  
Students will learn to apply Ethical principles to real world Environmental dilemmas, considering the implications for human and non-human life.

**Awareness of Global Issues:**  
Students will gain an understanding of Global environmental challenges and the ethical responsibilities of individuals, corporations and governments in addressing them.

**Course outcomes:**

On completion of the course students are expected to be able to:

- Articulate the importance and role of Environment.
- Students will develop the ability to effectively communicate complex ethical arguments related to environmental issues.
- Students will gain a deeper understanding of global environmental challenges and the ethical dimensions of issues such as climate change,



- ethical arguments related to environmental ethics.
- Students will gain a deeper understanding of global environmental challenges and the ethical dimensions of issues such as climate change, deforestation and resource depletion.

### The Syllabus

#### Part A (Theory):

##### **Unit I: Environmental Ethics:**

Nature and Scope of Environmental Ethics. Relation between Ethics, Applied Ethics and Environmental Ethics.

##### **Unit II: Anthropocentrism and Non-Anthropocentrism Human centered Ethics and Eco centric Ethics.**

##### **Unit III: Animal Rights and Ethics.**

#### Part B (Practical):

- Project/ Assignment.

  
Principal,  
Dhekiajuli  
Assam

  
Principal,  
LOKD College, Dhekiajuli  
Sonitpur, Assam

#### **Suggested Readings:**

- Upadhyay, A p s : Anthropocenic Environmental Degradation  
Upadhyah, Anima
- Singer, Peter : Practical Ethics.
- Mill, John Stuart : Utilitarianism.
- Rachel Carson : Silent Spring.
- Tom Regan : The case for Animal Rights.
- Maria Mies : Ecofeminism.

## **Serial No-5**

### **Environmental Ethics**

**SEC0300503**

**(By Puthimari College)**

#### **Course Description:**

Environmental ethics primarily deals with issues like how and why do we value the environment and the non-human inheritance of the earth, why should we care or examine the moral relationship between human beings and non-human beings. This course is an attempt to look at the implications of the moral value of the environment. This course focuses on our ethical relationship to environment and the ecological systems of which we are a part. By dealing through these issues, students will be equipped to participate in contemporary debate and to think anew about their own place in ecosystems. Most importantly, students will learn the skill of confronting complex issues relating to environment. The course is divided into two parts, (a) theory comprised of introduction to environment ethics and its various theories

(unit 1 and 2) and (b) practical, comprised of writing a report on local environment issues on the basis of visit to nearby places of environmental importance.

#### **Course Objectives:**

The course aims to:

- Develop the sense of ethical responsibility towards environment
- Explicate the significance of the various components of the environment like land, water, forest, species, ecosystem, cities etc.
- Develop conceptual thinking through, and participating in, complex ethical discussions about nature, the environment and ecosystems.

#### **Course outcomes:**

On completion of the course students are expected to be able to-

- Articulate the importance and role of environment.
- Uncover and explicate the fundamental significance of environment in terms of the present as well as the future human and non-human worlds.
- Understand one's duties and responsibilities towards protection of environment.

**Part A (Theory) Marks: 50**

**Unit 1: Ethics and Environment Ethics**

Nature of ethics: Normative ethics, Meta Ethics and Applied Ethics 25

Nature and Scope of Environment Ethics

Relation between Ethics, Applied Ethics and Environmental Ethics

**Unit 2: Theories of Environmental Ethics**

Anthropocentrism: Weak and Strong

Ecocentrism: Land Ethics, Deep Ecology 25

Biocentrism: Biodiversity and Animal Rights

**Part B (Practical) Marks: 50**

Students will submit our report (word limit: 3000-5000) on the basis of the following guidelines:

- a. Visit to local areas to study and document ecosystem like pond, rivers, hill, forest, grassland etc.
- b. Visit to local polluted sites like urban, rural, industrial and agricultural areas to document the environmental crisis.
- c. Prepare a report on environmental assets of local plants, insects, birds and animals.

**Books Recommended**

Naess, Arne. (1973). "The Shallow and Deep Ecology Movement". *Enquiry* 16, no. 1, 95-100.

Mill, John Stuart. (1874). *On Nature*. Lancaster University Press.

Leopold, Aldo. (1949). *The Land Ethic*.

Sengupta, R. (2003). *Ecology and economics (OUP): An approach to sustainable*

Singer, Peter. (1975). *Animal Liberation: A New Ethics for Our Treatment of Animals*. Harper Collins.

## **Serial No-6**

### **Film Appreciation**

**SEC0300603**

**(By Handique Girls College)**

Theory credit- 2, Practical credit- 1

Number of required classes- 40 hours

No. Of contact classes- 40 hours

Particulars of course designer-

Dr. Pallavi Deka, Department of Political Science, Handique Girls' College, Guwahati

Ms. Niminita Saikia, Department of Political Science, Handique Girls' College, Guwahati

**Course Description and objectives:** The course is an introduction to film appreciation- it focuses on helping the students to appreciate cinema by understanding its distinct language, its narrative complexity and the way films control and stimulate our thoughts and feelings in context of ideologies and social practices. It also discusses on film history, genre ad film analysis – fiction and documentary. The students will be encouraged to analyze a few selected films

**Learning Outcomes:** The course aims to see the impact of cinema in society and quip the student with an ability to engage with cinema in its societal context. The historical, social, aesthetic aspects of cinema are to be learnt.

**Pedagogy:** Screening of films, lectures accompanied with presentations, interactive discussions, assignment for completion outside the class.

Unit 1: understanding films (12 hours)

- History of films- silent era, sound cinema, the contemporary period
- Major film movements- Hollywood, Soviet, French, Korean, Iranian cinema
- Indian cinema- Dadasaheb Phalke, Satyajit Ray, Jyoti Prasad Agarwala

Unit 2: Cinema and society (12 hours)

- Ideology in Cinema- nationalism, welfarism, subaltern perspective
- Language of cinema and songs therein
- Characters in Cinema- Portrayal of patriarchy, caste-class angle,

### Unit 3: Films for analysis and appreciation (16 hours)

- The Great Dictator
- Children of heaven
- Mississippi Masala
- Rang De Basanti
- The Great Indian Kitchen
- Jatinga Ityadi
- Village Rockstar

### Reading List:

1. The History of Cinema: A very short introduction, Oxford Publication
2. Our Cinema, their cinema- Satyajit Ray
3. History of motion picture- Britanica online S.V
4. Book series on Cinema and Society by Routledge
5. Indian cinema, society and culture by Ambrish Saxena
6. Critical social science perspectives on Indian Cinema by Anirudh Deshpande and Anagha Kamble (/Aakar books)
7. Social importance of Assamese cinema in perspective- Vivekananda Kendra Prakashan

**Serial No-7**

**Folk Tradition and Performing Arts of Western Assam**

**SEC0300703**

**(By Chilarai College)**

Unit-1. Meaning and implication of Performing Arts:

( Folk Tradition, Tradition of Performing Arts in the context of Northeast and Assam, Community Specific Performing Art Forms)

Unit-2 : Familiarization with diverse Art Forms :

(Kushan Gan, Marai Pujar Gan, Goalini Nritya and Hudum Nritya etc)

Unit-3: Costumes and Various Devices in Stage Crafts.

Unit-4: Musical Instruments

Unit-3. Conduct of Workshops & Stage Performance

8. Paper offered by: Name of the institution: Chilarai College, Golakganj

7. Recommended books/References

1.Asomiya Natya Sahitya: Satyendra Nath Sarma

2.Asomiya Natiya Sahityar Jilingoni: Harish Ch. Bhattarcharjya

3.Bharatar Uttar Purbanchalar Paribeshya Kala: Nabin Chandra Sarma

4.Kushan Gan: Dwijendra Nath Bhakat

5. Folk Theatre Beyond Boundaries: Bharat Bhusan Mohanty, DVS

Publishers,2012

6. Performance tradition in India (India, the land and the people by Suresh Awasthi,2001

Designed by

1. Alakesh Chandra Roy, Assistant Professor, Assamese, Chilarai College

2. Dr Umesh Das, Assistant Professor, Assamese, Chilarai College

3. Dr Arup Sarma. Assistant Professor, English, Chilarai College

Serial No-7

**Folk Tradition and Performing Arts of Western Assam**

**SEC0300703**

**(By Laharighat College)**

**Folk Tradition and Performing Arts of Western Assamese SEC  
B.A. 3<sup>rd</sup> Semester (FYUGP)**

Sl. No.	Unit	Topic
1.	<b>Unit-I Meaning and implication of Performing Arts</b>	Folk Tradition, Tradition of Performing Arts in Northeast and Assam, Community Specific
2.	<b>Unit –II Familiarization with diverse Art Forms</b>	Kushan Gan, Marai Pujar Gan, Goalini Nri etc.
3.	<b>Unit –III</b>	Costumes and various devices in stage Craft

3.	<b>Unit –III</b>	Costumes and various devices in stage Craft
4.	<b>Unit –IV</b>	Musical Instruments.
5.	<b>Unit –V</b>	Conduct of Workshop and stage Performance
<b>Recommended Books</b>		<i>1. Asomiya Natya Sahitya, Satyendra Nath Sar 2. Bharatar Uttar Purbanchalar Paribeshya Ke 3. Kushan Gan, Dwijendra Nath Bhakat. 4. Folk Theatre Beyond Boundaries: Bharat B. DVS Publishers, 2012.</i>

Serial No-8

**An Introduction to Solapith Craft in Western Assam**

**SEC0300803**  
**(By Chilarai College)**

**1. SEC Course for Semester 1 under FYUGP, Gauhati U**

2. Course Name: **An Introduction to Solapith Craft in Western Assa**

3. Credit : 3 Credits

4. Credit distribution ( Theory/Practical):

5. Content ( Unit wise with a unit title)

a. **Introduction to Solapith craft Tradition** ( What is Folk Evolution of Solapith in Assam, Folk beliefs associated with Solapith, Cu of Solapith, Mythological Background of Solapith, Solapith Materia Marketing of Solapith, Current Status of Solapith Craft tradition, Intellectual and Indigenous crafts, Promoting Solapith craft tradition)

b. **Methods used for Solapith Items:** ( Engraving Method & Pai Designs & Creativity)

**c. Conduct of Workshops/ Hands on Training on Solapith**



Carrying out Collaborative Projects)

**d. Contribution to Rural Economy**

6. Recommended Books/References:

1. Kalita, Naren(Ed.): *Shilpa Alochana*, Asam Sahitya Sabha, Jorhat,
2. Caliha Pradip: *Puranai Asamar Karikari Silpa*, Asam Bijyan Sam
3. Talukdar, Dhruva Kumara(Ed.): *Asamar Lokoshilp Kola*, Bani First Publication-2011
4. Das, Dhire,: *Goalpariya lokosanskriti aru Lokogit*, Candra Prakas
5. Das, Jugal: *Asamar Loko Kala*, Prakashan Parisad, Assam, 1968
6. Damija Jeslin: *Handicraft of India: Our Living Culture Traa* India, 2002
7. Mandal, Sujay Kumar: *Loko Shipla Tatwik Prekshit*, Kolkata, 201
8. Dutta, Birendra Nath: *Goalparar Lokosanskriti aru Asamiya Awadan*, 1982
9. Dutta, Birendra Nath: *A Bibliography of Folklore Material of As Area*, 1978
10. Nath, Dwijen: *Goalpariya Lokosanskriti*, Banlata, Guwahati, 2008
11. Sarma, Shibananda(Ed.): *Goalpara Zilar Sanskriti Sangrakkhan*,

7. Paper offered by : Chilarai College, Golakganj

Designed by

- a. Dr Umesh Das, Assistant Professor, Assamese, Chilarai College
- b. Alakesh Chandra Roy, Assistant Professor, Assamese, Chilarai Colleg
- c. Dr Arup Sarma, Assistant Professor, English, Chilarai College.

  
Principal  
Chilarai College,

**Serial No-9**

## **Applied History in Policy Making**

**SEC0300903**

**(By Chilarai College)**

### **Introduction to the Course:**

"Applied History in Policy Making" is a course that looks at how historical study can intervene in policy making to transforming our society. Teachers can address real-life examples from different areas in class room teaching so that students are able to equip with skills to overcome emerging challenges. Adopting methods from various disciplines like economics, diplomacy, and other social sciences, teachers will engage students to explore how certain historical events can give us new insights. The goal of the course is to understand how history can guide us in making policies that are both fair and effective, and how it helps us predict what might happen in the future.

**Course Objectives:**The paper aims

- 1. Understanding Historical Context:** Analyze how historical events, decisions, and patterns influence policy outcomes.
- 2. Developing Analytical Skills:** Critically evaluate primary and secondary sources to derive lessons applicable to contemporary policy issues.
- 3. Applying Historical Insights:** Identify and apply historical analogies and narratives to inform and shape policy debates and decisions.
- 4. Communicating Effectively:** Develop written and oral communication skills to articulate the relevance of historical perspectives in policy making.

### **Course Learning Outcomes:**

In this course on Applied History in Policy Making, students will develop a comprehensive understanding of how past events, decisions, and societal trends influence contemporary policy outcomes. They will critically analyze primary and secondary historical sources using interdisciplinary methodologies from economics, diplomacy, and the social sciences to derive insights applicable to present-day policy challenges. By identifying and applying relevant historical analogies and narratives, students will shape policy debates and decisions while anticipating unintended consequences. Through comparative historical analysis, they will examine similarities and differences across contexts to discern patterns contributing to policy success or failure. This holistic approach equips students to engage thoughtfully in policymaking by leveraging historical perspectives effectively.

### **5. Course Contents:**

#### **Unit 1: Introduction to Applied History**

### **a. Definition of History and Multiple Perspectives on Historical Studies**

Definition of history: Understanding how historians study and interpret the past; Evolution of historical methodologies: From traditional narratives to interdisciplinary approaches.

### **b. Applied History: Scope, Nature, and Relation with Policy Making:**

Definition of applied history: Using historical knowledge and methods to address contemporary issues; Scope of applied history: Examples from economics, diplomacy, social policies, etc.; Importance of historical perspective in policy making: Identifying patterns, understanding unintended consequences.

## **Unit: 2: Methods and Approaches of Historical Analysis:**

- a. Comparative History:** Studying similar events or policies across different contexts to identify patterns and differences.
- b. Counterfactual Analysis:** Exploring "what if" scenarios to understand alternative outcomes and their implications.
- c. Longitudinal Studies:** Examining trends and developments over extended periods to understand historical processes and changes.

## **Unit 3: Case Studies in a Global Context**

### **a. Treaty of Versailles (1919) and its Impact on International Relations**

Historical context: End of World War I and the Paris Peace Conference; Analysis of diplomatic negotiations, reparations, and territorial adjustments; Legacy and shortcomings of the Treaty of Versailles in shaping interwar politics and contributing to World War II.

### **b. Munich Pact and Appeasement Policies**

Historical context: Pre-World War II tensions in Europe; Analysis of diplomatic strategies, negotiation tactics, and the balance of power, Lessons learned and critiques of appeasement policies in international relations.

### **c. Economic Policy and the Great Depression**

Historical context: Causes and impacts of the global economic downturn; Role of historical analysis in shaping economic policies; Case study: Lessons learned from New Deal programs in the United States.

### **d. The Cuban Missile Crisis: Lessons in Crisis Diplomacy:**

Historical context: US-Soviet relations and the arms race, Use of historical lessons in crisis diplomacy and international relations, Analysis of decision-making processes, communication strategies, and global implications.

## **Unit 4: Case Studies in Indian Context**

### **a. Gandhi's Nonviolent Resistance and Independence Movement**

Historical context: Mahatma Gandhi's leadership and principles of nonviolence; Analysis of their role in shaping India's struggle for independence; Impact on global nonviolent movements and human rights advocacy.

#### **b. Green Revolution and Agricultural Policy**

Historical context: Food security challenges post-independence; Application of historical lessons in agricultural policies and rural development; Case study: Technological innovations, land reforms, and socio-economic impacts.

#### **c. Economic Reforms of 1991 and Liberalization Policies**

Historical context: Balance of payments crisis and economic liberalization; Role of historical analysis in shaping economic reforms and development strategies; Case study: Impact on GDP growth, foreign investment, and social welfare programs.

#### **d. Environmental Conservation Movements in India and Policy Making**

Case Study: Chipko Movement, Narmada BachaoAndolan, and beyond; Historical context: Grassroots movements for environmental conservation; Analysis of policy interventions, sustainable development practices, and climate change adaptation; Case study: Role of indigenous knowledge, community activism, and governmental policies in environmental governance.

### **6. Recommended Books/References:**

1. Bipan Chandra, *India's Struggle for Independence: 1857-1947*, Penguin, Delhi, 2000
2. Bipan Chandra, *In the Name of Democracy: The JP Movement and the Emergency*, Penguin Books India, delhi, 2003
3. D.R. Gadgil, *The Green Revolution Revisited: Critique and Alternatives* , Sage Publication, New Delhi, 1986
4. E.H. Carr, *What is History?*, Penguin Books India, Delhi, 2011
5. Eric Hobsbawm, *The Age of Extremes: The Short Twentieth Century, 1914-1991*, Abacus, London, 1995
6. Kathleen Singles, *Alternate History: Playing with Contingency and Necessity*, link: <https://library.oapen.org/bitstream/id/a52a025a-0d86-47ca-a92c-d74fba897843/1005448.pdf>
7. Keith Jenkins, *Rethinking History*, Routledge, 2003
8. MadhavGadgil, RamachandraGuha, *This Fissured Land: An Ecological History of India*, Oxford University Press, New Delhi, 1992
9. Manmohan Singh, *India's Export Trends and Prospects for Self-Sustained Growth India*, Oxford University Press, Delhi, 1994
10. Marc Bloch, *The Historian's Craft*, Aakar Books, 2017
11. Niall Ferguson, *The Uses and Abuses of History*, Penguin Books India, Delhi, 2009
12. Niall Ferguson, *Virtual History: Alternatives and Counterfactuals*, Basic Books, London, 1997
13. Norman Lowe, *Mastering Modern World History*, Palgrave Macmillan, London, 2013
14. Peter Novick, *That Noble Dream*, Cambridge University Press, Cambridge, 1988
15. RamachandraGuha, *Environmentalism: A Global History*, Penguin Books India, Delhi, 2014
16. RanjanChakrabarti, *A History of the Modern World: An Outline*, Rama Brothers, 2012
17. SekharBandyopadhyay, *From Plassey to Partition and After* , Oriental Blackswan, Delhi, 2020
18. Trithankar Roy, *The Economic History of India 1857-2010*, Oxford University Press, New Delhi, 2020
19. Vandana Shiva, *Staying Alive: Women, Ecology, and Development*, Kali for Women, 1889

### **7. Paper to be offered by: Chilarai College, Golakganj**

**Designed by:**

**1. Sandeep Kumar Thakur**, Assistant Professor, Department of History, Chilarai College,  
Golakganj

**2. Krishna Bhowmik**, HoD, & Assistant Professor, Department of History, Chilarai College,  
Golakganj

Serial No-9

## Applied History in Policy Making

SEC0300903

(By Laharighat College)

### Applied History in Policy making Political Science– SEC B.A. 3<sup>rd</sup> Semester (FYUGP)

Sl. No.	Unit	Topic
1	<b>Unit-I Introduction to applied history</b>	<p><b>a. Definition of History and multiple Perspectives on History</b> Definition of History, Understanding how historians study methodologies, From traditional narratives to interdisciplinary</p> <p><b>b. Applied History: Scope, Nature and relations with politics</b> Definition of Applied history, Using Historical Knowledge, Examples from economics, diplomacy, social policies etc. perspective of policy making, Understanding unintended consequences</p>
2	<b>Unit – II Methods and Approaches of Historical Analysis</b>	<p><b>a. Comparative History :</b> Studying similar events or policies across different context differences.</p> <p><b>b. Counterfactual analysis :</b> Exploring “what if” scenarios to understand alternative implications.</p> <p><b>c. Longitudinal Studies :</b> Examining trends and developments over extended period processes and changes.</p>
		<p><b>a. Gandhi’s Non-violent resistance and Independence Movement</b> Historical Contexts : Mahatma Gandhi’s Leadership and political analysis of their role in shaping India’s struggle for independent non-violent movement and human rights advocacy.</p>

2	<b>Unit – II Methods and Approaches of Historical Analysis</b>	<p><b>b. Counterfactual analysis :</b> Exploring “what if” scenarios to understand alternative implications.</p> <p><b>c. Longitudinal Studies :</b> Examining trends and developments over extended period processes and changes.</p>
3	<b>Unit – III Case Studies in Indian Contexts</b>	<p><b>a. Gandhi’s Non-violent resistance and Independence Movement</b> Historical Contexts : Mahatma Gandhi’s Leadership and political analysis of their role in shaping India’s struggle for independent non-violent movement and human rights advocacy.</p> <p><b>b. Green Revolution and Agricultural Policy :</b> Historical Contexts : Food security challenges post-independence historical lessons in agricultural policies; Case study: Technological reforms, and socio-economic impacts.</p> <p><b>c. Economic Reforms of 1991 and Liberalization Policies</b> Historical Contexts : Balance of payment crisis and economic historical analysis. Case study : Impact on GDP growth, social welfare programs.</p> <p><b>d. Environmental Conservation Movements in India and Case Study :</b> Chipko movement, Narmada Bachao Andolan Context: Grassroots movement for environmental conservation interventions, sustainable development practices, and climate Case study: Role of Indigenous knowledge, community based policies in environmental governance.</p>
	<b>Recommended Books</b>	<ol style="list-style-type: none"> <li>1. Bipin Chandra, <i>India’s Struggle for Independence: 185</i></li> <li>2. E.H. Carr, <i>What is History?</i> Penguin Books India, Delhi</li> <li>3. Marc Bloch, <i>The Historian’s Craft</i>, Akar Books, 2017.</li> <li>4. Niall Ferguson, <i>The Uses and Abuses of History</i>, Penguin</li> </ol>

**Serial No-10**  
**Data Analysis in Social Sciences**  
**SEC0301003**  
**(By Pragjyotish College)**

**Distribution of Marks:**

1. End Semester Exam: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Assignment: Total Marks:	25
Theory Credit:	03
Practical Credit:	NIL
No. of Required Classes:	45 hours (Theory)
No. of Non-Contact Class:	10
Particulars of Course Designer:	

**Post Graduate Department of Economics, Pragjyotish College, Guwahati**

**Learning Objectives:**

- To understand the basics of data collection and data analysis in social sciences
- To develop interest in data analysis for social science research
- To provide first hand training for the students in collecting and organising the data as well as analysing data.
- To help the students who are interested in taking their career in research institutes and as a data analyst. It may become their sources of earning.
- To be immense helpful for the students who wish to pursue their higher studies in social sciences.

**Learning Outcomes:**

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

- ❖ Identify types of data used in social science research
- ❖ Grasp the foundational principles and multifaceted dimensions of select statistical methodologies employed within research paradigm used in Economics.
- ❖ Engage in pragmatic exercises involving data entry, and the exposition of data through computational tools such as Microsoft Excel.
- ❖ Compile a comprehensive report on the accrued data, followed by a nuanced interpretation of the derived outcomes.



## THEORY

Unit No.	Unit Content	Hours / No. of Classes (60)	Marks (75)
1.	<b>Data Analysis</b>	15	15
	Introduction, Data sources; Types of data-Primary and Secondary data, Quantitative data (Discrete, Continuous), Categorical data (Nominal, Ordinal); Time-series and Cross-section data.		
2.	<b>An Overview of Survey Research</b>	15	20
	Definition of a survey, types of survey, Basics of Research Methods – developing research questions/hypotheses and objectives, designing questions and response formats, sample size determination, Types of hypothesis, Procedure of testing hypothesis.		
3.	<b>Bivariate Statistics</b>	15	20
	Correlation-Types, Co-efficient of Correlation, Rank Correlation; Simple Linear Regression analysis, Regression Equations.		
4.	<b>Application</b>	15	20
	Hands on analysis of real data sets using computer software MS-excel; visualizing data with graphs and charts; interpreting statistical output, drawing conclusions; Report preparation.		

### Suggested Readings:

1. Gupta, S.C. *Fundamental of Statistics*, S. Chand & Company. New Delhi
2. Gupta, S.P. *Statistical Methods*, S. Chand & Company. New Delhi
3. Field, A. (2022). *An adventure in statistics: The reality enigma*. Sage.
4. [Ministry of Statistics and Program Implementation | Government Of India \(mospi.gov.in\)](https://mospi.gov.in)
5. Best, H., & Wolf, C. (Eds.). (2013). *The SAGE handbook of regression analysis and causal inference*. Sage.
6. Vannette, D. L., & Krosnick, J. A. (Eds.). (2017). *The Palgrave handbook of survey research*.
7. Wilson, J. (2018). *Academic writing: A guide to writing for publication*. Oxford University Press.

\*\*\*



Serial No-12

## Statistics for Data Analysis Using Software Packages

SEC0301203

(By LOKD College)

NEW AND COMMENTARY BY S.

19/18

SKILL ENHANCEMENT COURSE(SEC)  
**STATISTICAL FOR DATA ANALYSIS USING SOFTWARE PACKAGES**  
(Ms Excel/ R Programming/ MatLab/MiniTab)  
Credit : 03(75)

### Distribution of Marks:

1. End Semester Examination: Total Marks : 30
2. Sessional Examination: Total marks:20
3. Practical Total Marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required classes 30 hours (Theory) + 30 hours (Practical)
  - No. of Non- Contact classes 00
  - Particular of Course Designer  
Originally develop by Department of Statistics, Lalit Chandra Bharali C  
Ghy-11 and Revrised by Department of Statistics , Lokanayak Omeo K  
Dhekiajuli.

Target Group : Students from all disciplines of Semester –III

### Learning objectives:

1. This course is designed to provide students with an understanding of the cor to plan collect organize and have the knowledge of project preparati

- SPSS provides data analysis for descriptive and bivariate statistics , numerical data and predictions for identifying groups.

**Learning outcomes:**

After studying this course student will

- Acquaint with the basic concepts of data , different technique of presentation
- Be able to perform different statistical test necessary for data analysis using SPSS
- Be able to draw statistical inference and interpret the result in an applied context
- Increased accuracy of results to inform better decision making.
- Analyze data from far bigger databases in less time.
- Improves decision making based on data and accurate analysis.

**Syllabus**

**Theory :**

**Unit 1 : (04 classes)**

**Presentation of data :** Concept of data , Primary and Secondary data , Classification and Diagrammatic and Graphical presentation of data.

**Unit 2: (06 Classes)**

**Sample Survey:** Concept of sample and population , Complete Enumeration versus Sample and Non sampling Errors, Probability and Non probability Sampling.

**Unit 3: (08 classes)**

**Simple Random Sampling:** Simple Random Sampling with Replacement and without Replacement and Stratified Random Sampling.

**Unit 4: (08 Classes)**

**Testing of Hypothesis:** Concept of sampling distribution, Standard Error, type-I and type-II error of Significance, test of small sample, test for large sample , Chi –square test using back value method.

**Unit 5: (04 Classes)**

**Bivariate Data:** Concept of correlation and Simple linear regression.

**Practical : (30 Classes)**

**Analysis and Report preparation:** Drafting of questionnaire, Data Collection Through SPSS and Analysis and report preparation using Statistical packages.

Serial No-12

**Statistics for Data Analysis Using Software Packages**

**SEC0301203**

**(By LCB College)**

**Proposed Syllabus for SEC Course**

**L.C.B. College**

**Department of Statistics**

1. Semester: 3
2. Course Name: Statistics for Data Analysis Using Software  
(MS Excel/ SPSS/ R programming/ Minitab/ MatLab)
3. Credit: 03
4. Credit Distribution: Theory: 02; Practical: 01
5. Content :

Target Group: Students from all disciplines of Semester-III

Learning Objective: This course is designed to provide students with a the concept of data, how to plan, collect, organize and have the kno preparation using statistical software.

**Learning outcomes:**

packages.

- be able to draw statistical inference and interpret the result in an ap

**Syllabus:**

**Theory:**

**Unit-1: (04 classes)**

**Presentation of Data:** Concept of data, Primary and Secondary data, Clas  
Tabulation, Diagrammatic and Graphical presentation of data.

**Unit -2:(06 classes)**

**Unit-3:(08 classes)**

**Simple Sample Random Sampling:** Simple Random Sampling With Rep Without Replacement. Idea of Stratified Random Sampling.

**Unit-4:(08 classes)**

**Testing of Hypothesis:** Concept of sampling distribution, standard error,  $\alpha$  &  $\beta$  error, level of significance, test for small sample, test for large sample, C using both classical and p-value method.

**Unit-5:(04 classes)**

Bivariate Data: Concept of Correlation and Simple Linear Regression.

**Practical: (30 classes)**

**Analysis and Report preparation:** Drafting of Questionnaire, Data Collection survey method, Analysis and report preparation using statistical packages.

using both classical and p-value method.

**Unit-5:(04 classes)**

Bivariate Data: Concept of Correlation and Simple Linear Regression.

**Practical: (30 classes)**

**Analysis and Report preparation:** Drafting of Questionnaire, Data Collection survey method, Analysis and report preparation using statistical packages.

6. **Recommended books:**

1. Gupta S C., Kapoor V K.; Fundamentals of Mathematical Statistics, Anand and Sons.
2. Bhattacharjee D. and Bhattacharjee D.; B. Sc. Statistics Theory and Practice, Kalyani Publishers
3. Gupta S., Statistical Methods, Sultan Chand and Sons.

Serial No-12

## Statistics for Data Analysis Using Software Packages

SEC0301203

(By Pragjyotish College)

Course Name: **Statistics for Data Analysis Using Software Packages**

Excel/ SPSS/ R programming/ Minitab/ MatLab)

Credit: 03

Credit Distribution: Theory: 02; Practical: 01

**Content:**

Target Group: Students from all disciplines of Semester-III

Learning Objective:

This course is designed to provide students with an understanding of the concept to plan, collect, organize and have the knowledge of project preparation using software.

**Learning outcomes:**

After studying this course students will

- Acquaint with the basic concepts of data, different techniques of presentation
- Be able to perform different Statistical tests necessary for data analysis using software packages.

**Unit-1: (04 classes)**

**Presentation of Data:** Concept of data, Primary and Secondary data, Classification, Tabulation, Diagrammatic and Graphical presentation of data.



**Unit-3:(08classes)**

**Simple Sample Random Sampling:** Simple Random Sampling with Replacement Replacement. Idea of Stratified Random Sampling.

**Unit-4:(08classes)**

**Testing of Hypothesis:** Concept of sampling distribution, standard error, type I and error, level of significance, test for small sample, test for large sample, Chi-square both classical and p-value method.

**Unit-5:(04classes)**

**Bivariate Data:** Concept of Correlation and Simple Linear Regression.

**Practical:(30 classes)**

**Analysis and Report preparation:** Drafting of Questionnaire, Data Collection (survey method), Analysis and report preparation using statistical packages.

test for small sample, test for large sample, Chi-square both classical and p-value method.

**Unit-5:(04classes)**

**Bivariate Data:** Concept of Correlation and Simple Linear Regression.

**Practical:(30 classes)**

**Analysis and Report preparation:** Drafting of Questionnaire, Data Collection (survey method), Analysis and report preparation using statistical packages.

**2. Recommended books:**

1. Gupta S.C., Kapoor V.K.; Fundamental of Mathematical Statistics, Sultan Chand Sons.
2. Bhattacharjee D. and Bhattacharjee D.; B.Sc. Statistics Theory and Practice Kalyani Publishers
3. Gupta S., Statistical Methods, Sultan Chand and Sons.

**3. Paper Offered by:** Department of Statistics, O.P.J.S. Mahila College, Meerut



Serial No-13

## Database Management System Using Microsoft

SEC0301303

(By LCB College)

Proposed Syllabus for SEC Course

L.C.B. College

Department of Computer Science

1. Semester: 3
2. Course Name: SEC Database Management System Access
3. Credit : 03
4. Credit Distribution: Theory 2; Practical 1
5. Content:

**Target Group:** Students from Arts Stream

**Learning Objective :** After completing this topics students acquire knowledge of databases like students, employees, rai skills in creating and developing forms, queries and reports.

**Unit 1( 6 classes)**

Introduction to the concepts of database management system: Concept of database, Table, fields, field types, insertion o

**Unit 2 (8 classes)**

Orientation to Microsoft Access: Create a Simple Access Databa and Configure Options in Microsoft Access;

**Unit 3(8 classes)**

Create Relationships: One-To-One, One-To-Many, Many-To-Ma Functions

**Unit 4(8 classes)**

Working with Table Data: Modify Table Data; Sort and Filter Re

**Unit 5(10 classes)**

## Unit 6(10 classes)

Using Forms Create Basic Access Forms Work with Data on Access

## Unit 7(10 classes)

Generating Reports: Create a Report ; Add Controls to a Report  
Appearance of a Report ; Prepare a Report for Print; Organize R  
Information; Format Reports;

### DBMS-PRACTICAL QUESTIONS

1. Create a database named "school.mdb" and perform the following tasks:
  - a. Create a table named "student info" having following table structure.

Field Name	Data type	Description
Class	Number	
Section	Text	
Roll no	Number	
Name	Text	40 characters long
Status	Lookup wizard	Two value: "Senior", "Juni
Photo	OLE object	Photos of students
DOB	Date/time	Date of birth of students
Remarks	memo	

- b. Fill at least 5 records.
- c. Prepare a query to display all records and Name should be in ascending order.

2. Create a database named "library.mdb" and perform the following tasks:
  - a. Create a table named "Book" having following structure:

Field name	Field datatype	Description
Book_id	Text	Primary key. Book iden number
Bname	Text	Book name
Wname	Text	Writer's name
Pyear	Date/time	Published year
Pname	Text	Publisher name
Price	Currency	Purchased price
Pdate	Date/time	Purchased date
Remark	Memo	comments

- b. Add at least 5 records.
- c. Prepare a query to display only records including book name, writer name and publication name. Save the query as "q\_book".
- d. Prepare a query to display all records on the basis of price which is more than 1000.
- e. Prepare a form on the basis of table.
- f. Prepare a report on the basis of query named "q\_book".

3. Create a database named "Nepal Bank" to store information about its staffs and do the following:
  - a. Create a table named "staffinfo" having following table structure:

Field name	Data type	Description
Sid	Autonumber	Pkey. Staff identification nu
Department	Text	Department like teller dept, administration dept, store d loan dept, marketing dept
Sname	Text	Staff name
Address	Text	Address of staff
Sphone	Text	Staff phone
Post	Text	Like junior teller, cashier, accountant, manager etc
Doj	Date/time	Date of joined
Sdob	Date/time	Date of joined

- b. Create a form on the basis of "staffinfo" table and save as "entryform"



4. A. Create a database named exam.mdb and a table named class with the following structure.
- | Field name | Data type            |
|------------|----------------------|
| Roll no    | number (primary key) |
| Name       | text                 |
| English    | number               |
| Science    | number               |
| Math       | number               |
- B. Add any 5 records in the table.  
 C. Prepare a query named "total marks" to calculate sum of all the marks.  
 D. Prepare a query named "topper" of query "total marks" to display all records whose total is more than 200.  
 E. Prepare a form of your query using form wizard with all the fields.  
 F. Prepare a report on the basis of query "Total marks".

5. A. Create a database named employee.mdb and a table named staff info with the following structure
- | Field name   | Data type                           | description                   |
|--------------|-------------------------------------|-------------------------------|
| Emp_no       | number (primary key)                |                               |
| Name         | text                                |                               |
| Rank         | text                                | manager, officer, accountant. |
| Date of join | date/time                           |                               |
| Salary       | number (maximum 20000&minimum 6500) |                               |
- B. Add any 5 records in the table.  
 C. Prepare a query to display all the records with fields name, salary and tax (calculate tax as 12% of salary if salary is more than or equal to 15000 and 1% if it is less than that).  
 D. Prepare a query to display all records who join the job between 1/1/2007 and 1/1/2010  
 E. Prepare a form of all the fields of above table.  
 F. Prepare a report of query prepared for question no c.

#### 6. Recommended books:

- MS-Access by Narendra Tiwari
- Learning MS Access 2007, by Ramesh Bangia

#### 7. Paper offered by: Lalit Chandra Bharali College

Serial No-15

## NGO Management & CSR

SEC0301503

(By Rupahi College)

**Semester : III**  
**(NGO MANAGEMENT & CSR)**  
**Paper Code : SEC0307303**  
**CREDITS: 3 (2+1)**

Theory Lectures : 30hrs,  
Practical : 15(30hrs)  
Evaluation Pattern : (Internal Evaluation : 20,  
External Evaluation : Theory : 30,Practical : 25)

### Course Objectives:

- To make the students understand the importance of NGO
- To develop NGO Management competencies in various fields

### Course Outcomes :

- Sensitizing students the concerns of NGO Management
- Enabling students to acquire professional skills to run a NGO

### Unit 1: Concept of NGO 10

- Meaning of NGO and GO
- Difference between GO and NGO
- Characteristics of good NGO
- Functions of NGO

- Registration of NGOs
- Selection and training of Personnel
- Identifying Funding agencies
- Resource Mobilization
- Planning, Implementation and Evaluation str
- PR in NGO

**Unit 3: NGO Management. 10**

- Organizational types and structures
- Managing people and teams in NGOs
- NGO management competencies
- Applying NGO principles and values
- Accountability and impact assessment for NC

**Unit 4: Problems of NGO 5**

- Training and recruitment
- Funding
- Resource Mobilization

**Learning Experiences/practical (30hrs)**

1. Visit of Local NGO
2. Studying the ongoing Activities
3. Studying the problems

**RECOMMENDED READINGS**

- S. Chandra, Guidelines for NGO Management in India (2003), F Kanishka Distributors, New Delhi
- Abraham, Formation and Management of NGOs (2003), Third Edition by Universal Law Publishing Co. Pvt Ltd., New Delhi.
- Sundar, P. 2013, Business and Community: The Story of Corp Responsibility in India , New Delhi, Sage Publication.

Rupahi Col  
Home Science De

Serial No-16

## Making Effective Communication

SEC0301603

(By Moirabari College)



Subject Name:- English

SEC FYUGP 3<sup>rd</sup> Semester

Course Name:- Making Effective Communication

Total Marks:-75, External+Internal (45+30)

Credit-3

### Objectives:

- This paper is designed
- To share in, to give to another, or the interchange of thoughts, opinions, information.
- To involve the effort of the students to get in touch with another and to make themselves understood.
- To communicate with the objective of entertaining a listener.
- To communicate with the intention of convincing someone to do something that can benefit him/her.
- To employ motivation as an objective so as to convince someone to do something.
- To transmit the message with meaning and understanding.

### Course outcomes (Graduate attributes)

- To understand the process of communication.
- Speak with confidence and clarity in both formal & informal situation.
- It creates a collegial culture that fosters team work and encourages cooperation.
- It reduces the cost associated with conflicts misunderstanding and mistakes.
- It provides clarity of thoughts making roles, responsibilities and relationships clear.
- Identify different purposes for listening in academic and other contexts.

### Course contents:

#### Unit-1: Understanding communication

- Nature of Communication

➤ Identify different purposes for listening in academic and other contexts.

**Course contents:**

**Unit-1: Understanding communication**

- Nature of Communication
- Importance of Communication
- Process of Communication

**Unit-2 : Forms of Communication**

Classification of communication, verbal communication, Non-verbal communication, kinesics, Paralanguage, proxemics or territory or space. Formal & informal communication, Modern form of communication.

**Unit-3: Qualities of Effective Communication**

Reading, listening intelligently, thinking and Planning using appropriate language, using appropriate channel, an environment conducive to communication, overcoming differences of language.

**Unit-4: Barriers of Communication**

Mechanical Barriers, Physical Barriers, Psychological Barriers, Semantic & language Barriers, Status Barriers.

**Unit-5: Listening as a tool of Communication**

Listening Skills, Approaches to listening, Barriers to effective listening, Tips of effective listening

**Unit-6: Job related letters, Group Discussion and Interviews (Practical)**

CS CamScanner



Job Application, CV (Bio-data, Resume), Group discussion, Personal interview, Appointment and discharge letters.

**Books Recommended:-**

1. Business communication by V.K. Jain and Om Prakash Biyani, S.Chand and company Ltd. RamNagar, New Delhi – 110055.
2. Better English pronunciation by J.D. O'Conner
3. Business communication by Dr. Prakash M. Herekar  
Modern publisher, Gulab Bhawan, Bahadur Shah Zafar Marg, New Delhi

Course offered by :

Department of English Moirabari College, Moirabari, Morigaon

*DW*  
19-8-24  
Head, Dept of English  
Moirabari College  
Morigaon, Assam

Serial No-16

## Making Effective Communication

SEC0301603

(By Laharighat College)

### MAKING EFFECTIVE COMMUNICATION (SI

SUB : ENGLISH

B.A. 3<sup>RD</sup> Semester (FYUGP)

Sl. No.	Unit	Topic
1	<b>Unit-I : Understanding Communication</b>	1. Nature of Communication. 2. Parts of Communication. 3. Importance of Communication. 4. Process of Communication.
2.	<b>Uni-II : Forms of Communication</b>	1. Classification of Communication. 2. Verval & Non-Verbal Communication. 3. Formal & Informal Communication. 4. Visual Communication. 5. Modern forms of Communication.

2.	<b>Uni-II : Forms of Communication</b>	1. Classification of Communication. 2. Verval & Non-Verbal Communication. 3. Formal & Informal Communication. 4. Visual Communication. 5. Modern forms of Communication.
3.	<b>Unit-III : Qualities of Effective Communication</b>	1. Reading. 2. Listening intelligently. 3. Planning of using appropriate language. 4. Overcoming differences of language. 5. Using appropriate Channel.
4.	<b>Unit-IV : Listening as a tool of Communication</b>	1. Listening skills. 2. Approaches to listening. 3. Tips of effective listening. 4. To make understand of listening skills.
5.	<b>Unit-V : Letter, Group Discussion etc (Practical)</b>	1. Job Application 2. CV (Bio Date/ Resume) 3. Group Discussion. 4. Personal Interview. 5. Appointment and Discharge Letters.
<b>Books Recommended :</b>		<i>1. Business Communication by V.K. Jain and S. Chand and company ltd. Ram Nagar, New . 2. Better English Pronunciation by J.D.O. C. 3. Business Communication by Dr. Prakash N Modern publisher, Gulab Bhawan, Bahadur 2 New Delhi.</i>



Serial No-16

## Making Effective Communication

SEC0301603

(By Hatidhura College)



Total Marks : 75

Skill Enhancement Course (FYUGP)  
Subject: English  
Class: 3<sup>rd</sup> Semester  
Course Name: Making Effective Communication  
Internal : 30 External : 45

### Objectives :

- \*This paper is designed
- \*To share in, to give to another, or the interchange of thoughts, opinions, inform
- \*To involve the effort of the students to get in touch with another and to make it
- \*To communicate with the objective of entertaining a listener.
- \*To communicate with the intention of convincing someone to do something th
- \*To employ motivation as an objective so as to convince someone else to do so
- \*To transmit the message with meaning and understanding.

### Course outcomes (Graduate attributes)

- \* To understand the process of communication.
- \* Speak with confidence and clarity in both formal & informal situation.
- \* It creates a collegial culture that fosters team work and encourages cooperatio
- \* It reduces the cost associated with conflicts misunderstanding and mistakes.
- \* It provides clarity of thoughts making roles, responsibilities and relationships
- \* Identify different purposes for listening in academic and other contexts.

### Course contents:

#### Unit-1: Understanding communication

- \*Nature of Communication
- \* Importance of Communication
- \* Process of Communication

#### Unit-1: Understanding communication

- \*Nature of Communication
- \* Importance of Communication
- \* Process of Communication

#### Unit-2 : Forms of Communication

Classification of communication, verbal communication, Non-verbal communic communication, Modern forms of communication.

#### Unit-3: Qualities of Effective Communication

Reading, listening intelligently, thinking and Planning using appropriate language channel, intercultural Sensitivity, Showing Empathy, Avoiding Distractions.

#### Unit-4:Barriers of Communication

Mechanical Barriers, Physical Barriers, Psychological Barriers. Semantic & lang Barriers.

#### Unit-5: Listening as a tool of Communication

Listening Skills, Approaches to listening, Barriers to effective listening, Tips of

#### Unit-6: Job related letters, Group Discussion, Interviews, Oral Presentation Interpersonal Skills in Speaking: (Practical)

Job Application, (Bio-data, Resume), Comprehension Test, Group discussion and

#### Books Recommended:

1. Business communication by V.K. Jain and Om Prakash Biyani, S. Chand and c New Delhi – 110055.
2. Better English pronunciation by J.D.Oconner
3. Business communication by Dr. Prakash M. Herekar Modern publisher. Gula Zafar Marg, New Delhi

Course offered by:  
Department of English.

Serial No-16

## Making Effective Communication

SEC0301603

(By Rupahi College)

### Making Effective Communication

Subject Name :- English SEC FYUGP 3<sup>rd</sup> Semester

Course Name :- Making Effective Communication

Total Marks :- 75 External + Internal (45+30)

C

#### Objectives :

- This paper is designed
- To share in, to give to another, or the interchange of thoughts, opinions, information
- To involve the effort of the students to get in touch with another and to make themselves
- To communicate with the objective of entertaining a listener.
- To communicate with the intention of convincing someone to do something that carries
- To employ motivation as an objective so as to convince someone else to do something
- To transmit the message with meaning and understanding.

#### Course outcomes (Graduate attributes)

- To understand the process of communication.
- Speak with confidence and clarity in both formal & informal situation.
- It creates a collegial culture that fosters team work and encourages cooperation.
- It reduces the cost associated with conflicts misunderstanding and mistakes.
- It provides clarity of thoughts making roles, responsibilities and relationships clear.
- Identify different purposes for listening in academic and other contexts.

#### Course contents :

##### **Unit - 1 : Understanding communication**

- Nature of Communication
- Importance of Communication

- It creates a collegial culture that fosters team work and encourages cooperation.
- It reduces the cost associated with conflicts misunderstanding and mistakes.
- It provides clarity of thoughts making roles, responsibilities and relationships clear
- Identify different purposes for listening in academic and other contexts.

#### Course contents :

##### **Unit - 1 : Understanding communication**

- Nature of Communication
- Importance of Communication
- Process of Communication

##### **Unit - 2 : Forms of Communication**

Classification of communication, verbal communication, Non-verbal communication, kinesics or proxemics or territory or space. Formal & informal communication, Modern form of communication

##### **Unit - 3 : Qualities of Effective Communication**

Reading, listening intelligently, thinking and Planning using appropriate language, using environment conducive to communication, overcoming differences of language.

##### **Unit - 4 : Barriers of Communication**

Mechanical Barriers, Physical Barriers, Psychological Barriers, Semantic & language Barriers

##### **Unit - 5 : Listening as a tool of Communication**

Listening Skills, Approaches to listening, Barriers to effective listening, Tips of effective listening

##### **Unit - 6 : Job related letters, Group Discussion and Interviews (Practical)**

Job Application, CV ( Bio-data, Resume), Group discussion, Personal interview, Appointment

#### **Books Recommended :-**

1. Business communication by V.K. Jain and Om Prakash Biyani, S. Chand and company, Delhi - 110055.
2. Better English pronunciation by J.D.O Conner
3. Business communication by Dr. Prakash M. Herekar  
Modern publisher, Gulab Bhawan, Bahadur Shah Zafar Marg, New Delhi



**Serial No-18**

**Tour Executive**

**SEC0301803**

**(By Hatidhura College)**



**Semester III**

Paper Name : **Tour Executive**

Paper Code : **SEC0301803**

**Credits : 3**

**Unit - 1 : Concept of Tourism**

- Tourism and its types along with its contemporary nature
- Definition of traveller, tourist, excursionist, transit visitor, v amongst them
- Features of tourism product
- Marketing in tourism - Basic concept along with digital mar

**Unit - 2 : Tourism Resources of North East India**

- Knowledge of Map - India and North East India (special att map)
- Different types of tourism resources: Natural, cultural, historic

**Unit - 2 : Tourism Resources of North East India**

- Knowledge of Map - India and North East India (special att map)
- Different types of tourism resources: Natural, cultural, historic etc.

**Unit - 3 : Ticketing**

- Ticketing : Concept and Scope
- Online Ticketing, Airport codes
- Websites for online ticketing
- Softwares used for ticketing

**Unit - 4 : Preparation of tour package**

- Different modes of travel
- Designing tour itinerary
- Liaison with vendors
- Tour Costing

**Reading List :**

Bhatia, A.K., (2002) *Tourism Principles and Practices*. Sterling I

Bhattacharya, P., (2004) *Tourism in Assam: Trend and Potential*

Chetwani, Tarun. (2008) *Ticketing and Travel Agencies*. Cyber T

Serial No-20

## Early Childhood Care and Development

SEC0302003

(By Handique Girls College)

### KILL ENHANCEMENT COURSES

1. **SEMESTER:** 3<sup>rd</sup> Semester
2. **COURSE NAME:** EARLY CHILDHOOD CARE AND DEVELOPMENT
3. **CREDIT:** 3 CREDITS
4. **CREDIT DISTRIBUTION (THEORY/PRACTICAL):** THEORY-  
2
5. **CONTENT**

#### **Theory**

I: **Core** concepts in ECCE

- Significance of development in the early years
- Core concepts in ECCE
- Care and education as crucial needs between birth and six years
- International and national ECCE programmes

II: **Contexts** of Care and Development

- Concept of care and development
- Value of family and need for extra familial programmes
- Value of play, responsive environments and learning
- Curriculum, pedagogy, culture and inclusion

#### **Practical**

- Curriculum, pedagogy, culture and inclusion

#### **Practical**

- Visit to ECCE Centre: Creche/Preschool
- Workshops to understand children and document methods of play foster development in all domains through sessions on
  - Understanding childhood competencies
  - Developing teaching learning materials
  - Music, movement and drama for children
- Identifying ways to assess and record progress of children
- Methods and tools to evaluate ECCE programmes
- Develop a prototype format for setting up an ECCE Centre

#### 6. **RECOMMENDED BOOKS/REFERENCES**

- Aggarwal, J.C. (2007). *Early Childhood Care and Education: Principles and Practices*. New Delhi.
- Arni, K. and Wolf G. (1999). *Child Art with Everyday Materials*. T. Mohanty, J. Mohanty, B. (1996). *Early childhood care and Education*. Publication, New Delhi.
- Morrison, G.S. (2003). *Fundamentals of early childhood education*. Hall: Virginia
- Singh, A. (1995). *Playing to Learn: A training manual for Early Childhood Education*. M.S. Swaminathan Research Foundation.
- Swaminathan, M. (1998). *The First five Years*. Stage Publications.

**Serial No-21**

**Life Skill Education**

**SEC0302103**

**(By Pragjyotish College)**

Course Objectives:

- Develop understanding into the fundamental of life skills.
- Examine the theoretical and application-based perspective of life skills education.
- Develop competencies to classify different types of life skills.
- Develop understanding in to techniques of education of life skills.
- Explore ways of practicing life skills education.

Course Contents:

UNIT 1: Introduction To Life Skill Education

- Concept and definition of Life Skill Education.
- Objectives of Life Skill Education.
- Importance of Life Skill Education.

UNIT II: Ten Core Life Skills as Listed By WHO

- Problem solving skills.
- Decision making skills.
- Creative thinking skills.
- Critical thinking skills.
- Communication skills.
- Inter-personal skills.
- Empathy.
- Self-awareness.
- Coping with emotion.
- Coping stress.

UNIT III: Different Methods of Teaching Life Skills.

- Project, demonstration, observation, experiment and integrated method.
- Role of teachers in life skill education.

SUGGESTED READINGS:

1. Nair. A. Radhakrishnan, (2010), Life Skills Training for Positive Behavior, Rajib Gandhi National Institute of Youth Development, Tamil Nadu.
2. Santrock W. John (2006). Educational Psychology. (2<sup>nd</sup> Edn.) New Delhi: Tata McGraw-Hill Publishing Company Lt
3. Saravanakumar, A R Life Skill Education Through Life Skill Education Through Lifelong Learning, Lulu Publication.
4. Shalini Verma Development of Life Skill-II, Vuikas Publishing House.
5. UNESCO (2005), Quality Education and Life Skills: Darker Goals, UNESCO, Pairs.
6. WHO (1999): Partners in Skills Education: Conclusions from A United Nations Inter-Agency Meeting, WHO, Geneva.
7. Aggarwal, J.C. (2001):” Essential of Education Psychology” Vikas Publishing House, New Delhi.

**Serial No-21**

**Life Skill Education**

**SEC0302103**

**(By Beltola College)**

**Four Year Undergraduate Programme (FYUGP) S**

Subject Name: Education (SEC)

Course Name: LIFE SKILL EDUCATION

Credits: 3

3rd Semester

**Course Objectives:**

- Develop understanding into the fundamentals of life skills.
- Examine the theoretical and application based perspectives of life skill education
- Develop competencies to classify different types of life skill education
- Develop understanding into techniques of education of life skills
- Explore ways of practicing life skills education. To provide life skills education.

**Course Contents:**

**UNIT I : Introduction to Life Skill Education**

- Concept and definition of Life Skill Education.
- Objectives of Life Skill Education.
- Importance of Life Skill Education.

- Problem solving skills .
- Decision making skills.
- Creative thinking skills.
- Critical thinking skills.
- Communication skills.
- Inter-personal skills.
- Empathy.
- Self awareness.
- Coping with emotion.
- Coping stress.

### UNIT III : Different Methods of Teaching Life Skills.

- Project, Demonstration, Observation, Experiment and Integr
- Role of teachers in Life skill education.

### SUGGESTED READINGS:

1. Nair. A. Radhakrishnan, (2010), Life Skills Training for Rajiv Gandhi National Institute of Youth Development, Tai
2. Santrock W.John (2006). Educational Psychology. (2nd Ed McGraw-Hill Publishing Company Lt
3. Saravanakumar, A R Life skill Education Through Lifel Publication.
4. Shalini Verma Development Of Life Skill-II, Vikas Publish
5. UNESCO (2005), Quality Education and Life Skills: Dark Paris.
6. WHO (1999): Partners in Life Skills Education: Conclus Nations Inter-Agency Meeting, WHO, Geneva.
7. Aggarwal,J.C. (2001):” Essentials of Education Psycholog House, New Delhi.

Prepared by

Dhriimoni Das



Serial No-21

**Life Skill Education**

**SEC0302103**

**(By Lahorighat College)**

**Life Skill Education  
Education – SEC  
B.A. 3<sup>rd</sup> Semester (FYUGP)**

<b>Sl. No.</b>	<b>Unit</b>	<b>Topic</b>
1	<b>Unit-I : Introduction to Life Skill Education</b>	1. Concept and definition of Life Skill Education. 2. Objectives of Life Skill Education. 3. Importance of Life Skill Education.
2	<b>Unit-II Ten Core Life Skills as Listed by WHO</b>	1. Problem Solving Skills. 2. Decision Making Skills. 3. Creative thinking Skills. 4. Critical Thinking Skills. 5. Communication Skills. 6. Inter-Personal Skills. 7. Empathy. 8. Self Awareness.

	<b>Listed by WHO</b>	7. Empathy. 8. Self Awareness. 9. Coping with emotion. 10. Coping Stress.
3.	<b>Uni-III Different Methods of Teaching Life Skills</b>	1. Project, Demonstration, Observation, Experim Integrated method. 2. Role of teachers in Life Skill education.
	<b>Recommended Books</b>	1. Nair. A. Radhakrishnan, (2010), Life Skills Tr Behaviour, Rajib Gandhi National Institute of Tamil Nadu. 2. Saravanakumar, A R Life Skill Education Thru Learning, Lulu Publication.

Serial No-21

**Life Skill Education**

**SEC0302103**

**(By Manikpur Anchalik College)**

**Four Year Undergraduate Programme (FYUGP) S**  
**Subject Name: Education (SEC)**  
**Course Name: LIFE SKILL EDUCATION**  
**Credits: 3**  
**3rd Semester, Paper Code: SEC03.....**

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	3
2. Sessional Examination: Total Marks:	2
3. Practical: Total Marks:	2
a. Theory Credit:	0
b. Practical Credit:	0

No. of Required class 30 hours (Theory) + 30 hours (Practical)

Particulars of Course Designer: Department of Education, Manikpur Anchalik Colle

- Develop understanding into techniques of education of life skills.
- Explore ways of practicing life skills educational. To provide orientation in life skills.

**Course Contents:**

**UNIT I: Introduction to Life Skill Education**

**Hours 1:**

- Concept and definition of Life Skill Education.
- Objectives of Life Skill Education.
- Importance of Life Skill Education.
- Types of Life Skills
- Practising Life Skills (Methods of Life Skill Teaching)

  
Principal, T/C  
Manikpur Anchalik College  
Manikpur





## UNIT II: Ten Core Life Skills as Listed by WHO

Hours 15

- Problem solving skills.
- Decision making skills.
- Creative thinking skills.
- Critical thinking skills.
- Communication skills.
- Inter-personal skills.
- Empathy.
- Self awareness.
- Coping with emotion.
- Coping stress.

### UNIT III: Practical

- Writing skill
- Problem solving skill.
- Effective Communication skills.
- Group Projects.
- Field Trips.

- Problem solving skill.
- Effective Communication skills.
- Group Projects.
- Field Trips.

### SUGGESTED READINGS:

1. Nair. A. Radhakrishnan, (2010), Life Skills Training for Positive Behaviour, R Institute of Youth Development, Tamil Nadu.
2. Santrock W. John (2006). Educational Psychology. (2nd Edn.) New Delhi: Tata M Company Lt
3. Saravanakumar, A R Life skill Education Through Lifelong Learning, Lulu Pu
4. Shalini Verma Development Of Life Skill-II, Vikas Publishing House.
5. UNESCO (2005), Quality Education and Life Skills: Darkar Goals, UNESCO, Pa
6. WHO (1999): Partners in Life Skills Education: Conclusions from a United N Meeting, WHO, Geneva.
7. Aggarwal, J.C. (2001): "Essentials of Education Psychology" Vikas Publishing H
8. Kaddus, Abdul, Das, Dr. Dulumoni (2023) Life Skill Education. Khan Pu

**Serial No-21**

**Life Skill Education**

**SEC0302103**

**(By Handique Girls College)**

DEP.  
HAI

*Skill Enhancement Course (SEC)*  
FYUGP 3<sup>rd</sup> Semester, Gauhati University

**Life Skill Education**  
**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

➤ Theory Credit 02  
➤ Practical Credit 01  
➤ No. of Required Classes 30 hours (Theory)+30 hours(Pract)

**Learning Objectives**

- ❖ Develop understanding of the fundamental life skills.

- ❖ Understand the theoretical perspective of life skills
- ❖ Develop competencies in different types of life skills
- ❖ Explore ways of practicing life skills
- ❖ Application of different methods to teach life skills

**Learning Outcomes:**

On successful completion of the course, students will be able

- ❖ Identify the fundamental life skills
- ❖ Gain the knowledge of different types of life skills
- ❖ Learn the ways of practicing the important life skills
- ❖ Develop the skills of teaching the life skills

**Theory**

Unit 1: Introduction to Life Skills and Life Skill Education	Hours
a. Life Skills: Meaning, Definitions	
b. Life Skill Education: Meaning & Definitions, Nature	4 hr.
c. Brief History of Life Skill Education	
d. Importance of Life Skill Education	
Unit 2: Types of Life Skills	
a. Classification of Life Skills: Thinking, Social and Emotional Skills	19 hr.
b. Ten Types of Life Skills listed by WHO (Meaning,	

Steps, Importance, Ways of developing the skill)	
<ul style="list-style-type: none"> <li>• Problem Solving Skill</li> <li>• Decision Making Skill</li> <li>• Creative Thinking Skill</li> <li>• Critical Thinking Skill</li> <li>• Communication Skill</li> <li>• Inter-personal Skill</li> <li>• Empathy</li> <li>• Self Awareness</li> <li>• Coping with Emotion</li> <li>• Coping Stress</li> </ul>	
Unit 3: Methods for Teaching Life Skills a. Teaching Method: Meaning b. Teaching Methods for Life Skill Education (Meaning, Steps, Merits and Demerits) <ul style="list-style-type: none"> <li>• Observation Method</li> <li>• Demonstration Method</li> <li>• Experiment Method</li> <li>• Integrated Method</li> </ul> c. Teachers' Role in Life Skill Education	7 h

- Experiment Method
  - Integrated Method
- c. Teachers' Role in Life Skill Education

**Practical**

<ol style="list-style-type: none"> <li>1. Preparation of a write up on how a conflict situation will be resolved (The students will be given a real life based conflict situation)</li> <li>2. The students will submit a creative work such as Essay, Short story, Poem, craft work, lyrics, drama or clay model on given</li> </ol>	Hours 30	Mark 20
---	----------	---------

social issues)		
3. The students will present a brief analysis of a given social problem with possible decisions (Presentation in PPT Format)		
4. Viva Voce. On students problem solving ability		

Suggested Readings:

1. Aggarwal J.C. (2001). Essentials of Educational Psychology. New Age International Publishing House, New Delhi.
2. Erin Murphy-Graham et al. (2022). Life Skill Education: A Global Perspective. Springer.
3. UGC (2019). Life Skills. University Grants Commission, New Delhi.
4. UNESCO (2005). Quality Education and Life Skills. Paris.



Serial No-21

## Life Skill Education

SEC0302103

(By Moirabari College)

### Four Year Undergraduate Programme (FYUGP) Syllab

Subject Name: Education (SEC)

Course Name: LIFE SKILL EDUCATION

Credits: 3

3rd Semester

#### Course Objectives:

- Develop understanding into the fundamentals of life skills.
- Examine the theoretical and application based perspective education
- Develop competencies to classify different types of life skills
- Develop understanding into techniques of education of life skills.
- Explore ways of practicing life skills education. To provide orie skills.

#### Course Contents:

##### UNIT I : Introduction to Life Skill Education

- Concept and definition of Life Skill Education.
- Objectives of Life Skill Education.
- Importance of Life Skill Education.

##### UNIT II : Ten Core Life Skills as Listed by WHO

- Problem solving skills .
- Decision making skills.
- Creative thinking skills.
- Critical thinking skills.

#### SUGGESTED READINGS:

1. Nair. A. Radhakrishnan, (2010), Life Skills Training for Positive Rajiv Gandhi National Institute of Youth Development, Tamil Nadu
2. Santrock W.John (2006). Educational Psychology. (2nd Edn.)New I McGraw-Hill Publishing Company Lt
3. Saravanakumar, A R Life skill Education Through Lifelong Lear Publication.
4. Shalini Verma Development Of Life Skill-II, Vikas Publishing Hous
5. UNESCO (2005), Quality Education and Life Skills: Darkar Goals, Paris.
6. WHO (1999): Partners in Life Skills Education: Conclusions from Nations Inter-Agency Meeting, WHO, Geneva.
7. Aggarwal,J.C. (2001):" Essentials of Education Pschology"Vikas

Serial No-24

Srijoni Mulok Sahitya

SEC0302403

(By ASBC College)

ASM-SE -  
সৃজনীমূলক সাহিত্য  
মূল্যকে ৭৫

(উদ্দেশ্য: এই পাঠ্যৰ জৰিয়তে কবিতা আৰু গল্প লিখাৰ প্ৰাথমিক আৰু ব্যৱহাৰিক জ্ঞান প্ৰদান কৰা হ'ব।)

প্ৰথম গোটঃ	২৫
কল্পনাৰ সংজ্ঞা আৰু পৰিসৰ	
কল্পনাৰ কৰ্মণ	
সৃজনীমূলক সাহিত্য ৰচনাৰ প্ৰয়োজনীয় যোগ্যতা	
দ্বিতীয় গোটঃ	২৫
আধুনিক কবিতাঃ সংজ্ঞা আৰু বৈশিষ্ট্য	
আধুনিক কবিতাৰ পটভূমি	
আধুনিক কবিতাৰ ভাষা	
তৃতীয় গোটঃ	২৫
গল্পৰ বীজ ৰোপণ	
গল্প ৰচনাৰ বাবে ক্ষেত্ৰ অধ্যয়ন	
গল্প নিৰ্মাণ	

সহায়ক গ্ৰন্থপঞ্জীঃ(নিৰ্বাচিত)  
ৰমন্যস্বাদঃ মহেন্দ্ৰ বৰা  
আধুনিকতাবাদ আৰু অন্যান্য প্ৰবন্ধঃ হৰেকৃষ্ণ ডেকা  
সৃজনীমূলক সাহিত্যঃ প্ৰেৰণা আৰু আৰ্হিঃ অতনু ভট্টাচাৰ্য  
আধুনিক অসমীয়া কবিতাঃ কামালুদ্দিন আহমেদ

*Makram Hussain*  
Head of the Department  
Department of Assamese  
Alhaj Sunai Bibi Choudhury College  
Udali Bazar, Lanka (Assam)

# Serial No-24

## Srijoni Mulok Sahitya

SEC0302403

(By Rupahi College)

(FYUGP) BA 3 rd Semester  
Subject- Assamese ( SEC)  
Paper- Srijanimulak Sahitya  
Credit - 3 (Marks -75)

Distribution of Marks:	Total Marks
1. End Semester Examination:	30
2. Sessional Examination :	20
3. Project :	25

Unit 1: Srijanimulak Sahitya Aru Parixar	Credit-1
Kalpanar Sangya	
Kalpanar Karshan	
Srijanimulak Sahitya Rochonar Proyujojiyota	
Unit 2: Asomiya Adhunik Kabita	Credit-1
Adhunik Kabitar Sangya aru Boishistya	
Adhunik Kabitar Patbhumi	
Adhunik Kabitar Bhasa	
Unit 3: Chutigalpar Likhna Shaili	Credit- 1
Galpar Bij Rupan	
Galpa Rochonar Babe Khetra Adhyayan	
Galpar Nirman	

Unit 2: Asomiya Adhunik Kabita	Credit-1
Adhunik Kabitar Sangya aru Boishistya	
Adhunik Kabitar Patbhumi	
Adhunik Kabitar Bhasa	
Unit 3: Chutigalpar Likhna Shaili	Credit- 1
Galpar Bij Rupan	
Galpa Rochonar Babe Khetra Adhyayan	
Galpar Nirman	

#### Reference Books:

Adhunik Asomiya Kabitar : Kamaluddin Ahmed  
Adhunikatabad Aru Ananya Prabandha : Harekrishna Deka  
Ramanyasbad : Mahendra Bora  
Srijanimulak Sahitya: Prerona Aru Aarhi: Atanu Bhattacharya  
Asamiya Chutigalpar Adhyayan: Prahlad Kumar Baruah  
Asamiya Chutigalpar Prabaha: Lilawati Saikia Bora  
Chutigalpar: Bisar Aru Vishleshan: Shailen Bharali

Serial No-25

অনুবাদ-চর্চা

SEC0302503

(By Dept. Of Bengali, G.U.)

Paper Code - BEN SEC PAPER- 3		Credits-3
Paper Title - অনুবাদ-চর্চা		External Marks—80
		Internal Marks—20*
Units	Topics	Marks
I	<b>অনুবাদ সম্পর্কে প্রাথমিক ধারণা</b> অনুবাদের সংজ্ঞা, বৈশিষ্ট্য, ক্ষেত্র, প্রকারভেদ, পদ্ধতি, প্রয়োজনীয়তা ও সমস্যা	20
II	<b>অনুবাদ তত্ত্ব ও ব্যবহার</b> অনুবাদের তত্ত্ব : সমাজতাত্ত্বিক, যোগাযোগমূলক, হারমেনিউটিক, ভাষাতাত্ত্বিক, সাহিত্যিক ও সেমিওটিক অনুবাদ সংস্থা – ইউনেস্কো, রাষ্ট্রীয় অনুবাদ মিশন অনুবাদে ইন্টারনেট ব্যবহার – গুগল ট্রান্সলেটর	20
III	<b>বাংলা অনুবাদ সাহিত্যের পরিচয়</b> বৈদিক সাহিত্য অনুবাদের ধারা (রামমোহন ও বিদ্যাসাগর); মধ্যযুগের রামায়ণ, মহাভারত ও ভাগবতের অনুবাদের ধারা; মধ্যযুগের মুসলিম কবিদের আরবি-ফারসি অনুবাদের ধারা (দৌলত কাজি ও আলাওল);	20
IV	<b>অসমিয়া, বাংলা ও ইংরেজি অনুবাদ (নির্বাচিত)</b> অসমিয়া থেকে বাংলা গল্পের অনুবাদ (মূল গল্পসহ): (অসমীয়া গল্প সংকলন, সম্পাদনা- নির্মলপ্রভা বরদলৈ, অনুবাদ- সুজিৎ চৌধুরী, এন.বি.টি.) ক। লক্ষ্মীনাথ বেজবরুয়া—জলকন্যা খ। নিরুপমা বরগোহাট্রি—ক্ষণিকা গ। মহীচন্দ্র বরা—ভূমিকা ঘ। পদ্ম বরকটকী—ফুলঝুরি  রবীন্দ্রনাথ ঠাকুরের ‘গীতাঞ্জলি’র নির্বাচিত ইংরেজি অনুবাদ: (Geetanjali : Song Offerings, Edited-Baridbaran Ghosh, Parul) ক। আমারে তুমি অশেষ করেছ খ। চিত্ত যেথা ভয়শূন্য উচ্চ সেথা শির গ। আমি ভিক্ষা করে ফিরতেছিলাম ঘ। আলো, আমার আলো, ওগো	20

\*Candidates have to attend one Sessional Exam, of 40 marks and submit two Home Assignments each of 20 Marks for Internal Assessment Marks. Internal Assessment marks will be given out of 20 marks by averaging the marks obtained in Sessional Examination and Home Assignments.

**Reference Books:**



- ১। অনুবাদ অধ্যয়ন : তত্ত্ব আরু প্রয়োগ – মদন শর্মা
- ২। অনুবাদ তত্ত্ব আরু প্রয়োগ – নীরাজনা মহন্ত বেজ বরা।
- ৩। বাংলা সাহিত্যের সংক্ষিপ্ত ইতিবৃত্ত (প্রাচীন ও মধ্য যুগ) – অসিত কুমার বন্দ্যোপাধ্যায়।
- ৪। অনুবাদ তত্ত্ব ও গণ জ্ঞাপন বিদ্যা – রমাকান্ত দাস
- ৫। হালখাতা (বিষয়ভিত্তিক ত্রৈমাসিক পত্রিকা) ,বাংলা দেশের অনুবাদ বিষয়ক প্রবন্ধ সংখ্যা, শওকত হোসেন শরমিন  
নিশাত (সম্পা.)

Outcome: The course will enable students to develop real-life skills about various applications of Bengali language. They will gather theoretical knowledge about proof reading, Bengali terminologies and journal and book editing.

.....

**Serial No-26**

## Logic and Reasoning

**SEC0302603****(By Dept. Of Philosophy, G.U.)**

Credits: 3 (Marks: 75)

Semester : III

Unit No.	Unit Content	No. of Classes	Marks
I (Theory)	<ul style="list-style-type: none"> <li>- Deductive and Inductive Arguments</li> <li>- Kinds of Deductive Inference: mediate and immediate inferences</li> <li>- Syllogism in Ordinary Language (Enthymemes, Sorites, Deductive and Hypothetical Syllogisms, Dilemma)</li> </ul>	15	25
II (Theory)	<p><b>Informal Fallacies</b></p> <p><b>A. Fallacies of Relevance:</b></p> <p>R1 ARGUMENT <i>ADPOPULUM</i> (The Appeal to Emotion)</p> <p>R2 THE RED HERRING</p> <p>R3 THE STRAW MAN</p> <p>R4 ARGUMENT <i>ADHOMINEM</i> (Argument against the Person)</p> <p>R5 ARGUMENT <i>ADBACULUM</i> (The Appeal to Force)</p> <p>R6 <i>IGNORATIOELENCHI</i> (Missing the Point)</p> <p><b>B. Fallacies of Defective Induction:</b></p> <p>D1 ARGUMENT <i>ADIGNORANTIAM</i> (The Argument from Ignorance)</p> <p>D2 ARGUMENT <i>ADVERECUNDIAM</i> (The Appeal to Inappropriate Authority)</p> <p>D3 ARGUMENT <i>NON CAUSA PRO CAUSA</i> (False Cause)</p> <p>D4 Hasty Generalization</p> <p><b>C. Fallacies of Presumption</b></p> <p>P1 Accident</p> <p>P2 Complex Question</p> <p>P3 <i>PETITIO PRINCIPII</i> (Begging the Question)</p> <p><b>D. Fallacies of Ambiguity</b></p> <p>A1 Equivocation</p> <p>A2 Amphiboly</p> <p>A3 Accent</p> <p>A4 Composition</p>	15	25

	A <sub>4</sub> Division		
III (Practical)	-Naming the fallacy involved in the argument	02	15
	-Explanation of why/how the argument commits the fallacy	08	25

a. **Reading list:**

**Unit I & Unit II (Theory)**

Chakraborti, Chhanda (2007). *Logic—Informal, Symbolic & Inductive*, Prentice Hall of India Private Limited, New Delhi

Copi, I.M. & Carl Cohen (2009), *Introduction to Logic* (Thirteenth Edition), Pearson Prentice hall.

**Unit III (Practical)**

Copi, I.M. & Carl Cohen (2009), *Introduction to Logic* (Thirteenth Edition), Pearson Prentice hall.

b. **Graduate Attributes**

**i) Course Objectives-**

The Course aims at develop the traits and skills to:

- Learn what is an argument in logic.
- Understand how arguments are divided into deductive and inductive.
- Enable the students to find out the kinds of deductive arguments
- Learn syllogism in ordinary language.
- Develop logic alrigour in discovering various fallacies involved in ordinary language.

**ii) Learning outcomes:**

At the completion of the Course the student is expected to be able to:

- Identify logical fallacies in day-to-day conversations and argumentations.
- Avoid committing fallacies.
- Provide well-reasoned arguments in any discourse.

j. Theory Credit 02

k. Practical Credit 01

l. No. of Required Classes 45

m. No. of Non-Contact Classes 00

n. Particulars of Course Designer (Jahnabi Deka, Ph.D., Gauhati University, [jahnabideka@gauhati.ac.in](mailto:jahnabideka@gauhati.ac.in))

## Serial No-27

### Parliamentary Procedures and Practices

SEC0302703

(By Dept. of Political Science, GU)

#### Distribution of Marks:

1. End Semester Examination: Total Marks: 30

2. Sessional Examination: Total Marks: 20

3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
- No. of Non-Contact Classes 00
- Particulars of Course Designer Department of Political Science, Gauhati University

#### Learning objectives:

- ❖ To make the students familiar with legislative practices in India with an orientation to equip them with the adequate skills of participation in deliberative and democratic decision making processes.
- ❖ To provide basic understanding on the constitutional provisions related to the process of legislations as well as the kinds of bills.
- ❖ To enhance proper understanding related to the procedures, practices related to the passage of a bill from drafting to passing of the Bill.
- ❖ To know about different Committees in the House, and on Hours and Motions in the House.

#### Learning outcomes:

- ❖ The successful completion of the course will help the students in understanding the practical approaches to legislatives practices and procedures.
- ❖ The students will be able to understand the procedures and processes related to drafting a Bill and the passage of the Bill.
- ❖ The course will enable the students to have an understanding of the different Parliamentary Committees and their importance.
- ❖ The students will learn about different proceedings of parliament to raise a discussion in the House on a matter of general public interest.

#### THEORY

<b>UNIT-I: Constitutional Provisions and Kinds of Bills</b> Constitutional provisions of legislative procedures: Articles 107-22 Kinds of Bills: Ordinary Bills, Money Bills, Finance Bills, Private Member Bills	Hours: 8	Marks: 8
<b>UNIT-II: Drafting, Introductions and Readings of the Bills:</b>	Hours:	Marks:

<b>Procedures and Processes</b> Drafting of the Bill First Reading and Departmental Standing Committee Second Reading Third Reading Passage of the Bill Consent by the President Gazette Notifications	10	10
<b>UNIT-III: Parliamentary Committees: Composition and Functioning</b> Departmental Standing Committees, Select Committees, Joint Parliamentary Committees, Public Accounts Committee, Committee on Privilege, Business, Advisory Committee, Ethics Committee <b>Hours:</b> Question Hour, Zero Hour <b>Motions:</b> Calling Attention Motion, Adjournment Motion, Privilege motion, Censure motion, 'No-confidence' motion, Cut motion	Hours: 12	Marks: 12

### PRACTICAL

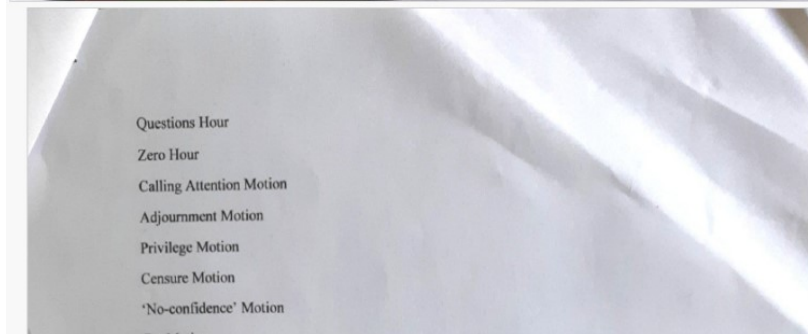
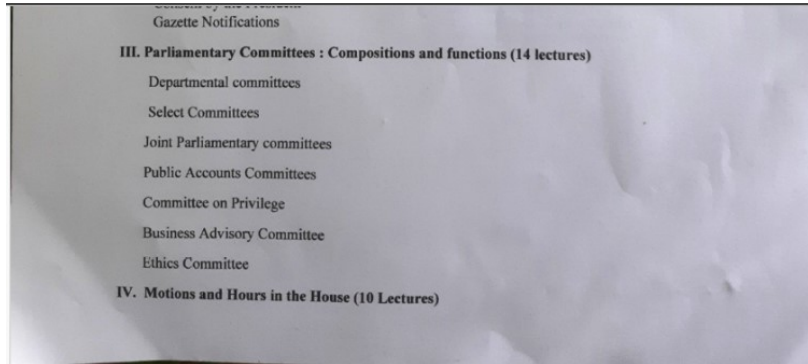
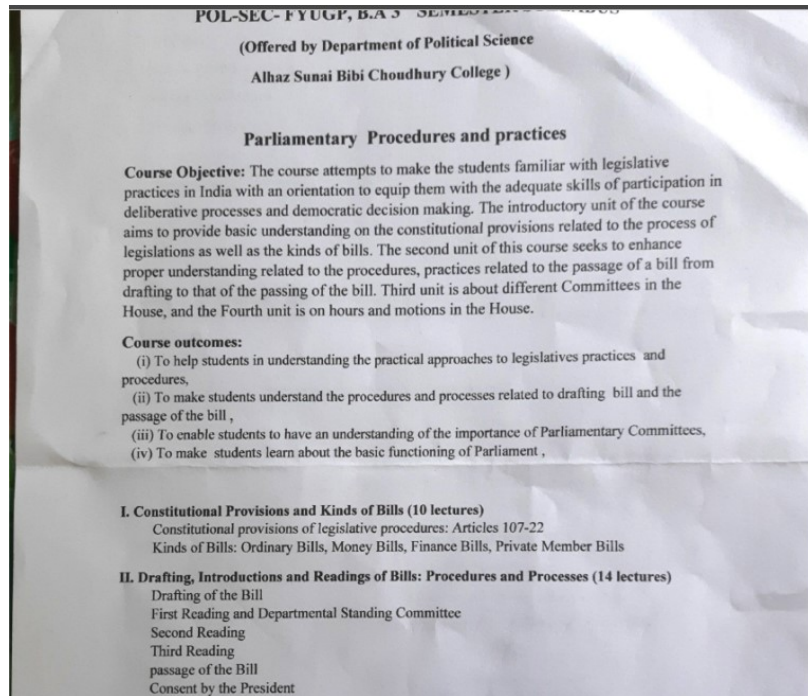
Project Report/Field Study Report based on any activity i.e. visit to Assembly / District Administration/any other important places, Conducting Mock Parliament, Debate / Speech etc.	Hours: 30	Marks: 25
---	--------------	--------------

### Suggested Readings

1. Kapur D. and P. Mehta eds. (2005), *Public Institutions in India: Performance and Design*, New Delhi, Oxford University Press.
2. Kaul, M. N. & S. L. Shakhdher (2016), *Practice and Procedure of Parliament*, New Delhi. Lok Sabha Secretariat
3. Mehra, A.K. ed. (2017), *The Indian Parliament and Democratic Transformation*, New Delhi, Routledge.
4. Basu, D.D. (2006), *Introduction to the Constitution of India*, Nagpur, Wadhwa & Co.
5. Kapur, D., Mehta, P. & Vaishnav, M. eds. (2017), *Rethinking Public Institution in India*, New Delhi, Oxford University Press.
6. Malhotra, G. (2002), *Fifty years of Indian Parliament*, New Delhi, Lok Sabha Secretariate
7. Mehra, A.K. & Kueck G.W. eds. (2003), *The Indian Parliament: A Comparative Perspective*, New Delhi, Konark Publishers.
8. Prakash, A.S. (1995), *What Ails Indian Parliament*, New Delhi, Harper & Collins.

9. Pai, Sudha & Kumar, A. Eds. (2014), *The Indian Parliament: A Critical Appraisal*, New Delhi, Orient BlackSwan.
  10. Shankar, B. & Rodriguez V. (2011), *The Indian Parliament: A Democracy at Work*, New Delhi, Oxford University Press.
  11. Singh, D. (2016), *The Indian Parliament: Beyond the Seal and Signature of Democracy*, Gurgaon, India, Universal Law Publishing.
-

**Serial No-27**  
**Parliamentary Procedures and Practices**  
**SEC0302703**  
**(By ASBC College)**



Privilege Motion  
Censure Motion  
'No-confidence' Motion  
Cut Motion

**Modalities for Practical Component :** Project Report/Field Study Report based on any activity i.e. visit to Assembly / Distric Administration / any other important places, Conducting Mock Parliament, Debate/Speech etc.

\*\*\*\*\*

**Name & Signature of HOD**

Dept. of Political Science

Alhaz Sunai Bibi Choudhury College

*Masrufa Kamal Ahmed.*

*M*

Head of the Department  
Department of Pol. Science  
Alhaz Sunai Bibi Choudhury College  
Udali Bazar, Lanka (Assam)



Serial No-27

Parliamentary Procedures and Practices

SEC0302703

(By Hatidhura College)



Semester : Four Years Undergraduate Programme  
III Semester SEC

Course name : **Parliamentary Procedures and Practices**

Credit: 3 credits (Marks.75)

Credit distribution : (Theory credit 2 , Practical credit 1)

**Distribution of Marks :**

1. End Semester Examination : Total Marks :	30
2. Sessional Examination: Total Marks :	20
3. Practical: Total Marks :	25
Theory Credit	02
Practical Credit	01
No. Of Required Classes	30 hours (Theory +30 hour

**Course Objective :** The Course Attempts to make the students familiar with an orientation to equip them with the adequate skills of participation in democratic decision making . The Introductory unit of the course aims to provide

unit of this course seeks to enhance proper understanding related to the process of the passage of the bill from drafting to that of the passing of the Bill. The course covers the role of Committees in the House, and the Fourth unit is on hours and motions in the

**Course outcomes :**

- . To Help students in understanding the practical approaches to legislative procedures
- . To make student understand the procedures and processes related to drafting of the Bill,
- . To enable student to have an understanding of the Importance of Parliamentary Procedures
- . To make students learn about the basic functioning of Parliament .

**I. Constitutional Provisions and kinds of Bills**

Constitutional provisions of legislative procedures : Articles 107-22  
kinds of Bills : Ordinary Bills, Money Bills, Finance Bill, Private Member Bill

**II. Drafting, Introductions and Reading of the Bills : Procedures and process**

Drafting of the Bill  
First Reading and Departmental Standing Committee  
Second Reading  
Third Reading  
Passage of the Bill  
Consent by the President  
Gazette Notifications

### III. Parliamentary Committees : Composition and Functioning

Departmental Standing Committees  
Select Committees  
Joint Parliamentary committees  
Committee on Privilege  
Business Advisory Committee  
Ethics Committee

### IV. Motions and Hours in the House

Questions Hour  
Zero Hour  
Calling Attention Motion  
Adjournment Motion  
Privilege Motion  
Censure Motion  
'No confidence' Motion  
Cut Motion

**Modalities for Practical Component :** Project Report/ Field Study Report based on  
Assembly / District Administration /any other Important places, Conducting Mock

Censure Motion  
'No confidence' Motion  
Cut Motion

**Modalities for Practical Component :** Project Report/ Field Study Report based on  
Assembly / District Administration /any other Important places, Conducting Mock  
Speech etc.

#### READING LIST

Kapur D. and P. Mehta eds. (2005), Public Institutions in India : Performance and  
University Press.  
Kaul M.N. & S.L. Shakhder(2016) Practice and Procedure of Parliament, New De  
Loksabha Secretary.  
Mehra , A.K. ed (2017), The Indian Parliament and Democratic Transformation, N  
Basu,D.D.(2006) Introduction to the Constitution of India. Nagpur,Wadhwa & Co.  
Kapur, D., Mehta, P. & Vaishnav M.eds. (2017) Rethinking Public Institution In Indi  
University Press.

Paper Offered by :  
Department of Political Science,  
Hatidhura College, Hatidhura

## Serial No-27

### Parliamentary Procedures and Practices

SEC0302703

(By Lunding College)

#### Distribution of Marks:

1. End Semester Examination: Total Marks: 45
2. Internal Evaluation: Total Marks: 30

#### Internal assessment comprising any three of the following:

- i. Class assignment/home assignment/case studies
- ii. Class test/Unit test
- iii. Field work
- iv. Group discussion
- v. Seminar presentation
- vi. Participation in class discussion
- vii. Quiz
- viii. Any other evaluative method as determined by the concerned teacher

**Learning objectives:** The course attempts to make the students familiar with legislative practices in India with an orientation to equip them with the adequate skills of participation in deliberative processes and democratic decision making. The introductory unit of the course aims to provide basic understanding on the constitutional provisions related to the process of legislations as well as the kinds of bills. The second unit of this course seeks to enhance proper understanding related to the procedures, practices related to the passage of a bill from drafting to that of the passing of the Bill. Third unit is about different Committees in the House, and the Fourth unit is on hours and motions in the House.

#### Learning outcomes:

- To help students in understanding the practical approaches to legislative practices and procedures,
- To make students understand the procedures and processes related to drafting a Bill and the passage of the Bill,
- To enable students to have an understanding of the importance of Parliamentary Committees,
- To make students learn about the basic functioning of Parliament.

<b>Unit 1: Constitutional Provisions and Kinds of Bills</b> Constitutional provisions of legislative procedures: Articles 107-22 Kinds of Bills: Ordinary Bills, Money Bills, Finance Bills, Private Member Bills	Hours:15	Marks:15
<b>Unit 2: Drafting, Introductions and Readings of the Bills: Procedures and Processes</b> Drafting of the Bill First Reading and Departmental Standing Committee Second Reading Third Reading Passage of the Bill Consent by the President Gazette Notifications	Hours:10	Marks:10
<b>Unit 3:Parliamentary Committees: Composition and Functioning</b> Departmental Standing Committees	Hours:10	Marks:10

Select Committees Joint Parliamentary Committees Public Accounts Committee Committee on Privilege Business Advisory Committee Ethics Committee		
<b>Unit 4: Motions and Hours in the House</b> Question Hour Zero Hour Calling Attention Motion Adjournment Motion Privilege motion, Censure motion, 'No-confidence' motion, Cut motion	Hours:10	Marks:10

### READING LIST:

- Kapur D. and P. Mehta eds. (2005), *Public Institutions in India: Performance and Design*, New Delhi, Oxford University Press.
- Kaul, M. N. & S. L. Shakhdher (2016), *Practice and Procedure of Parliament*, New Delhi. Lok Sabha Secretariat
- Mehra, A.K. ed. (2017), *The Indian Parliament and Democratic Transformation*, New Delhi, Routledge.
- Basu, D.D. (2006), *Introduction to the Constitution of India*, Nagpur, Wadhwa & Co.
- Kapur, D., Mehta, P. & Vaishnav, M. eds. (2017), *Rethinking Public Institution in India*, New Delhi, Oxford University Press.
- Kashyap, S. (2000), *Reviewing the Constitution*, New Delhi, Shipra Publication. \_\_\_\_\_ (2003), *Blueprints of Political Reforms*, New Delhi, Shipra Publication. \_\_\_\_\_ (2015), *Our Parliament*, New Delhi, NBT.
- Malhotra, G. (2002), *Fifty years of Indian Parliament*, New Delhi, Lok Sabha Secretariat
- Mehra, A.K. & Kueck G.W. eds. (2003), *The Indian Parliament: A Comparative Perspective*, New Delhi, Konark Publishers.
- Prakash, A.S. (1995), *What Ails Indian Parliament*, New Delhi, Harper & Collins.
- Pai, Sudha & Kumar, A. Eds. (2014), *The Indian Parliament: A Critical Appraisal*, New Delhi, Orient BlackSwan.
- Shankar, B. & Rodriguez V. (2011), *The Indian Parliament: A Democracy at Work*, New Delhi, Oxford University Press.
- Singh, D. (2016), *The Indian Parliament: Beyond the Seal and Signature of Democracy*, Gurgaon, India, Universal Law Publishing.

**Serial No-27**  
**Parliamentary Procedures and Practices**  
**SEC0302703**  
**(By Rupahi College)**

**Skill Enhancement Course**  
**Parliamentary Procedure and Practices**  
**Credit: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 45
2. Sessional Examination: Total Marks : 30
  - Theory Credit : 3
  - No. of Required Classes: 45 hours

**Course Objective:** The course attempts to familiarize students with legislative process and provide an orientation to equip them with adequate participation skills in deliberative process and decision-making. The introductory unit of the course aims to provide a basic understanding of constitutional provisions related to the process of legislation as well as the kinds of bills. The second unit of this course seeks to enhance proper understanding related to the procedures, from the passage of a bill from drafting to that of the passing of the Bill. The third unit deals with Committees in the House.

**Course Outcome:**

- ❖ To help students understand the practical approaches to legislative practice
- ❖ To make students understand the procedures and processes related to drafting and passage of the Bill,
- ❖ To enable students to have an understanding of the importance of Parliamentary Committees.

**Unit I: Constitutional Provisions and Kinds of Bills**

Constitutional provisions of legislative procedures: Articles 107-22

Kinds of Bills: Ordinary Bills, Money Bills, Finance Bills, Private Members' Bills

**Unit II: Drafting, Introductions and Readings of the Bills: Procedures and Powers**

Drafting of the Bill

First Reading and Departmental Standing Committee

Second Reading

Third Reading

Passage of the Bill

Consent by the President

Gazette Notifications

**Unit III: Parliamentary Committees: Composition and Functioning**

Departmental Standing Committees

Select Committees

Joint Parliamentary Committees

Public Accounts Committee

***Suggested Readings:***

Kapur D. and P. Mehta eds. (2005), *Public Institutions in India: Performance and Structure*, Oxford University Press.

Kaul, M. N. & S. L. Shakhdher (2016), *Practice and Procedure of Parliament*, New Delhi, Secretariat

Mehra, A.K. ed. (2017), *The Indian Parliament and Democratic Transformation*, Routledge.

Basu, D.D. (2006), *Introduction to the Constitution of India*, Nagpur, Wadhwa & Sons

Kapur, D., Mehta, P. & Vaishnav, M. eds. (2017), *Rethinking Public Institutions in India*, Oxford University Press.

Mehra, A.K. & Kueck G.W. eds. (2003), *The Indian Parliament: A Comparative Study*, Delhi, Konark Publishers.

***Particulars of course design prepared by Department of Political Science***

**Serial No-30**  
**Programming in Maxima**  
**SEC0303003**  
**(By M.C. College)**

**Course Objective:**

This course is designed for beginners who want to learn how to use Maxima for symbolic mathematics. The syllabus covers fundamental concepts and operations, providing a foundation for more advanced mathematical tasks.

**Course Outcome:**

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

1. Understand and navigate the Maxima interface.
2. Perform basic arithmetic and algebraic operations.
3. Solve equations and systems of equations symbolically.
4. Differentiate and integrate functions.
5. Utilize Maxima for basic plotting and visualization.

**Unit 1:** Introduction to Maxima, Overview of Maxima: What is Maxima? Installing Maxima, Introduction to the Maxima interface (GUI and command-line), Basic syntax and commands.

Basic Operations: Arithmetic operations (+, -, \*, /, ^), Using variables, Evaluating expressions

Algebraic Manipulations. Simplification and Expansion: simplify(), expand(), factor(), Combining like terms

Substitution: subst(), replace(), Substituting variables in expressions

**Practical:** Simple calculations, Basic algebraic manipulations, Simplify and expand given expressions, Perform substitutions in algebraic equations

**Unit2:** Solving Equations, Solving Single Equations, solve(), fsolve(), Handling equations with multiple variables.

Solving Systems of Equations: Linear systems, Nonlinear systems

Differentiation and Integration, Differentiation: diff(), partial derivatives, Higher-order derivatives

Integration: integrate(), definite vs. indefinite integrals, Applying integration to problems

**Practical:** Solve single-variable equations, Solve systems of equations

- Differentiate and integrate simple functions
- Solve problems involving derivatives and integrals

**Unit3:** Plotting and Visualization. Basic Plotting: plot2d(), plot3d(), Plotting functions and data points

Customization: Axis labels, titles, and legends, Adjusting plot appearance

Working with Matrices. Matrix Operations: Creating matrices, Matrix addition, subtraction, and multiplication

Matrix Inversion and Determinants: inverse(), determinant()

**Practical:** - Create and customize plots for given functions

- Plot multiple functions on the same graph
- Perform basic matrix operations
- Compute determinants and inverses

**Unit 4:** Handling Complex Numbers: Basic operations with complex numbers, realpart(), imagpart()

Working with Polynomials: Polynomial operations and factorization, Roots and polynomial equations

**Practical:** - Perform operations with complex numbers

- Solve polynomial equations

**Project:** - Apply Maxima to a real-world problem or project

- Present findings and solutions using Maxima

Resources:

1. Maxima Documentation: [Maxima Documentation](<http://maxima.sourceforge.net/documentation.html>)
2. Online Forums and Communities\*\*: Engage with Maxima users for help and discussion.
3. Tutorials and Videos\*\*: Explore online tutorials for additional learning.

Dept. of Mathematics, Madhab Choudhury College, Barpeta



**Serial No-31**  
**Creative Writing in Bengali**  
**SEC0303103**  
**(By Pragjyotish College)**

Course Title: CREATIVE WRITING IN BENGALI (বাংলা সৃজনমূলক লেখন)

Course Code: BEN-SEC-0303103

Credit: 3

Total Marks: 75

Distribution of Marks:

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical: Total Marks	25
Theory Credit	02 (30 hours class)
Practical Credit	01 (30 hours class)
Non-Contact Class	NIL
Particulars of Course Designer	Department of Bengali, Pragjyotish College, Ghy.

**Course Description:** This course introduces students to the fundamentals of creative writing, including poetry, short stories, scriptwriting and content writing in Bengali language. Students will explore various techniques, styles, genres etc. and develop their writing skills through workshops, discussions and writing exercises.

**Learning Objectives:**

- Understand the basics of creative writing
- Develop writing skills in Bengali poetry, short stories and script writing including screenplay
- Experiment with different styles and genres
- Analyze and critique peer writing
- Produce portfolio of original writing

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

- Improve writing skills including grammar, syntax and style
- Enhance creativity to generate new ideas and explore imagination to develop unique voice
- Develop portfolio with original work which can be showcased in different platform
- Understand deeply on literary devices, genres and learn to publishing process
- Build community or join in writers' forums
- Contribute professionally in different field and media

Course Title: CREATIVE WRITING IN BENGALI (বাংলা সৃজনমূলক লেখন)

Course Code: BEN-SEC-0303103

Credit: 3

Total Marks: 75

**Theory**

Unit Structure	Text : পাণ্ডুলিপি থেকে প্রুফ সংশোধন	Hours	Marks
Unit I	পাণ্ডুলিপিপরিচিতি: পাণ্ডুলিপিকী, পাণ্ডুলিপিরপ্রকারভেদ, পাণ্ডুলিপিপ্রস্তুতিতেলেকেরভূমিকা, পাণ্ডুলিপিরস্তরবিন্যাস।	6	14
Unit II	কবিতা : কবিতারপাণ্ডুলিপিপ্রস্তুতি, কবিতারপাণ্ডুলিপিচনারবিভিন্নপর্যায়। কর্মশালারআয়োজন: খসড়ালেখন, পুনরীক্ষণ, সম্পাদন (আনুষঙ্গিকপাঠ্যবিষয়- কবিতারছন্দওঅলঙ্কার, পরিচয় : আখ্যানকবিতা, গীতিকবিতা, মহাকাব্য, সনেট, ওড, এলিজি, হাইকু)	8	12
Unit III	ছোটোগল্প : গল্পেরপাণ্ডুলিপিপ্রস্তুতি, গল্পলেখারবিভিন্নপর্যায়। কর্মশালারআয়োজন: খসড়ালেখন, পুনরীক্ষণ, সম্পাদন (আনুষঙ্গিকপাঠ্যবিষয়- ছোটোগল্পের সংজ্ঞা, বৈশিষ্ট্য, ঘটনামুখ্য-চরিত্রমুখ্য-ভাবমুখ্য গল্পের ধারণা, পরিচয় : সমাজসমস্যামূলক - নরনারীর সম্পর্কমূলক - মনস্তাত্ত্বিক-ব্যঙ্গ্যমূলক-অতিলৌকিক-রাজনৈতিক-রূপকধর্মী গল্প।)	8	12
Unit IV	নাটকওচিত্রনাট্য : নাটকেরপাণ্ডুলিপিপ্রস্তুতি, নাটক-চিত্রনাট্যচনার বিভিন্নপর্যায়। কর্মশালারআয়োজন: খসড়ালেখন, পুনরীক্ষণ, সম্পাদন (আনুষঙ্গিকপাঠ্যবিষয়- নাটকেরপঞ্চসঙ্কি, নাটকেরপ্রকারভেদসম্পর্কেপরিচয় : পৌরাণিক, দেশপ্রেমমূলক, সামাজিক, অ্যাবসার্ডনাটক, থার্ডথিয়েটারওনবনাট্যআন্দোলনসম্পর্কেধারণা, চিত্রনাট্যেরসিনপসিস, ট্রিটমেন্ট, শুটিং স্ক্রিপ্ট, ডিটেল, বিভিন্ন ধরনের শট্ সঙ্কে ধারণা)	8	12

**Practical:**

বিষয়(Topic)	Hours	Marks
১. কবিতারপাণ্ডুলিপিপ্রস্তুতি (বিষয় – প্রকৃতি, মানবপ্রেম) ২. ছোটোগল্পেরপাণ্ডুলিপিপ্রস্তুতি(বিষয় – ব্যক্তিপ্রধান, ঘটনাপ্রধান) ৩. একাক্ষনাটকেরপাণ্ডুলিপিপ্রস্তুতি(বিষয় – প্রকৃতি, মানবপ্রেম) ৪. চিত্রনাট্যেরপাণ্ডুলিপিপ্রস্তুতি (বিষয় – রবীন্দ্রনাথ, শরৎচন্দ্র চট্টোপাধ্যায়, সুবোধ ঘোষ, নারায়ণ গঙ্গোপাধ্যায়ের ছোটোগল্প অবলম্বনে)	30	25

Text Book: পাণ্ডুলিপি থেকে প্রুফ সংশোধন– JyotirmoySengupta, SaptarshiPrakashan, Kolkata 9

**Suggested Reading:**

1. কবিতার কথা – জীবনানন্দ দাশ
2. ছন্দের বারান্দা – শঙ্খ ঘোষ
3. বাংলা ছন্দের মূলসূত্র – অমূল্যধন মুখোপাধ্যায়
4. অলংকার-চন্দ্রিকা – শ্যামাপদ চক্রবর্তী

5. গল্পকথার কথা – রণবীর পুরকায়স্থ
6. সাহিত্যে ছোটগল্প – নারায়ণ গঙ্গোপাধ্যায়
7. নাটকের কথা – অজিত কুমার ঘোষ
8. চিত্রনাট্য প্রসঙ্গে – সত্যজিৎ রায়
9. চিত্রনাট্যরচনাওচিত্রনাট্যবিশ্লেষণ – ধীমানদাশগুপ্ত
10. সাহিত্যের রূপরীতি ও অন্যান্য প্রসঙ্গ – কুন্তল চট্টোপাধ্যায়
11. সাহিত্য সন্দর্শন – শ্রীশচন্দ্র দাস
12. গল্পগুচ্ছ ১,২ – রবীন্দ্রনাথ ঠাকুর
13. শরৎরচনাবলি – শরৎচন্দ্র চট্টোপাধ্যায়
14. শ্রেষ্ঠগল্প – সুবোধ ঘোষ
15. গল্পসমগ্র ১,২,৩ – নারায়ণ গঙ্গোপাধ্যায়
16. সমার্থশব্দকোষ – অশোকমুখোপাধ্যায়
17. অন্তর্জালেঅথবাঅন্যত্রপ্রাপ্তবিভিন্নশ্রাব্যওদৃশ্যউপকরণ

(Prepared by: Bengali Department, Pragijyotish College, Guwahati,  
Assam)

---

**Serial No-32**  
**Spoken Sanskrit**  
**SEC0303203**  
**(By Progati College)**

**Total Credit** = 03 (Theory Credit = 02 & Practical Credit = 01)

**Total Marks** = 75 (Theory = 30, Internal assessment = 20 & Practical = 25)

**No. of Theory Classes** = 30, **No. of Practical Classes** = 15

Unit No.	Unit Content	Credit	No. of Classes	Marks
I	<b>Declension and Conjugation.</b> ➤ <b>Sabdarūpa:</b> Svarānta, Vyanjanānta, Sarvanām, Samkhyā ; ➤ <b>Dhāturūpa:</b> bhu, gam, drs, as, kr, sru, ni, han, path, khād, pach, bad, pā, likh, jna.	1	15	25
II	<b>General Grammar.</b> ➤ <b>Kāraka-Vibhakti</b> ➤ <b>Suffixes:</b> ktvāc, lyap, tumun, ktavatu, satr, sānac.	1	15	25
III	<b>Practical.</b> Simple Sanskrit Spoken Skill ➤ Use of Svarānta, Vyanjanānta, Sarvanām and Samkhyā Savda in simple Sanskrit sentence. ➤ Use of Simple Sanskrit verbs in lat, lot, long and lrt. ➤ Use of Kāraka-Vibhakti, Sapta 'Ka' kār. ➤ Use of Pronouns- tat, etat, yat.	1	15	25

**Reading List:**

1. Sarma Rajendra Nath, Sanskrit Vyakaran Surabhi, Chandra Prakash, Panbajar, Guwahati-1.
2. Sastri Khagendra Nath, Sanskrit Prabesh Vyakaran, Chandra Prakash, Panbajar, Guwahati-1.
3. Sarma Sri Narayan Chandra, Sanskrit Vyakaran Pradip, Ashok Publication, Panbajar, Guwahati-1.
4. Sarma Giridhar, Sanskrit Grammar composition and Translation, Bina Library, Guwahati, Assam.

**Course Objectives:**

- a) Students will gain knowledge about the formation of Sanskrit words and verbs.
- b) Students will acquire the basic knowledge of Sanskrit Case-ending.
- c) Students will gain knowledge about the simple Sanskrit speaking process in day to day life.
- d) Students will acquire the basic knowledge of the use of Sanskrit suffixes.

**Learning Outcomes:**

After going through this course students will be able.

- a) to grasp the basic concept of Sanskrit Grammar.
- b) to understand the importance of Sanskrit Grammar in any type of Linguistic Study.
- c) to grasp the basic techniques of translation studies.

- d) to grasp the basic use of Kāraka-Vibhakti
- e) to develop Sanskrit speaking skill for day to day life

\* \* \* \* \*

**Serial No-33**  
**Socio-Economic Developments in Post-Independent Assam**  
**SEC0303303**  
**(By Progati College)**

**Distribution & Marks**

1. End Semester Examination Total Marks = 30
2. Sessional Examination Total Marks = 20
3. Practical/Project Marks = 25

**Theory Credit = 2**

**Practical/Project = 1** (Students will carry out a small project based on local socio-economic, cultural & environmental phenomenon its impact in contemporary time)

**Course Designed by-**

History

Department,

Progati College,

Agomani

**Learning Objectives:**

1. Understanding the economic, impact of partition in post independent Assam with special reference to demographic change.
2. Help the students to analyse the industrialization, urban development, transport & communication in post independent Assam.
3. Analyse various natural disasters & environmental issues of Assam.
4. Develop interest in various cultural developments like Assam Sahitya Sabha, Mahila Samiti, Assam Lekhika Samaroh, educational development etc in post independent Assam.

**Learning Outcomes:**

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

1. To explain the socio-economic development in post independent Assam.
2. To gain knowledge of various natural disasters & environmental issues in post independent Assam.
3. To identify the course & impact of various struggles & cultural movements in contemporary Assam.

**Theory:**

**Unit I – Economic Developments:**

- (a) Economics impact of the Partition.-Immigration Impact.
- (b) Industrialization and Urban Development:-Tea, Petroliam & Plywood industry
- (c) Demographic changes.
- (d) Transport and communication:-Train, Road, Navigation & Air

**Unit II – Environmental issues:**

- (a) Natural disasters: earthquake of 1950, flood, erosion.
- (b) Development and environment.
- (c) Big dam issue.
- (d) Development, Displacement and natural resources.

**Unit III – Cultural Developments:**

- (a) Activities of the Assam Sahitya Sabha.
- (b) Development of EDUCATION: Elementary, Secondary and Higher.
- (c) Women's Movements: Mahila Samiti, Assam Lekhika Samaroh.

**Readings (tentative):**

Baruah, S.L.: A Comprehensive History of Assam

**Baruah S.L.(ed) Status of Women in Assam with special Reference to Non-Tribal Societies.**

**Goswami, S.B. Economics Development of Assam.**

**Medhi, S.B. Transport System and Economic Development in Assam.**

**Serial No-34**  
**Spoken English**  
**SEC0303403**  
**(By Progati College)**

**Total Credit = 03**

**Total Marks = 75 (Theory = 30, Internal assessment = 20 & Practical = 25)**

**Objectives:**

1. To prepare students for the competitive English environment.
2. To build the basic foundation for English communication skills.
3. Students will learn to use English language without error confidently.

**Course Outcomes:**

1. This course is designed to make the students skilled in English for better communication with others.
2. Students can develop his skills in English language speaking and understanding.
3. Students will acquire grammatical depth and will learn to draft application, invitation letter, report of any event etc.

**Practical test will include (25 marks)**

1. Loud reading of a poem/passage/newspaper.
2. Pronunciation of words.
3. Testing of a good listener (Summery telling after listening a short story)

**Unit-I**

Preparedness of English conversation to be perfect in English speaking.

1. Introduction yourself and others.
2. Interview conversation.
3. Conversation with businessmen in the market place.
4. Conversation with unknown person in Airport/Train station/Bus station.
5. Telling of past incidents in life to others.

**Unit-II**

1. Group discussion given on a topic.
2. Telephonic conversation.
3. Dialogues.
4. Comprehension and interpretation.
5. Report writing, Application writing, Invitation letter writing.

**Unit-III**

1. Words & Phrases used for conversation, greeting, order, question-answer, advice and suggestions.
2. Translation.



3. Pronunciation of consonants & vowels.
4. Syllables, stress & unstressed syllables.
5. Tenses, voice and narrations.

**Recommended Books & Materials:**

1. Eastwood, John. Oxford Guide to English Grammar. OUP, 1994.
2. Yates, Jean. English Conversation. Mc Graw Hill, 2020.
3. Daniel Jones. English Pronouncing Dictionary. 15<sup>th</sup> edition. Roach, P & Hartman, J.eds. Cambridge UK: Cambridge University Press, 1997.
4. An Approach to English Grammar & Composition.
5. Roach, Peter. English Phonetics & Phonology: A self contained Comprehensive Pronunciation course. 4<sup>th</sup> edition. Cambridge UK: Cambridge University Press, 1983.
6. A practical English Grammar, 4<sup>th</sup> edition, Oxford. By A.J. Thomson & A.V. Martinet.
7. Oxford, Jackc. Richards. Person to Person, a communicative speaking and listening skills, 3<sup>rd</sup> edition.

\* \* \* \* \*

**Serial No-36**  
**Plant Diversity and Human Welfare**  
**SEC0303603**  
**(By Handique Girls College)**

**Credits: 3** (Marks: 75)

**Distribution of Marks:**

1. End Semester Examination:            Total Marks: 30
2. Sessional Examination:            Total Marks: 20
3. Practical:                                Total Marks: 25
  - Theory:                                Credit 02
  - Practical:                                Credit 01
  - No. of Required Classes:            48 hours (Theory) + 12 hours (Practical)
  - Particulars of Course Designer: Department of Botany, Handique Girls' College, Guwahati.

**Learning objectives:**

- Understand the importance of biodiversity –species, genetic and ecosystem diversity in general and plant diversity in particular.
- Understand the use and non use values of biodiversity.
- Understand the issues of biodiversity loss and conservation measures.
- Learn about the role of plants in human welfare.
- Idea about the biogeographic zones of India and various conservation (in situ) sites across the country.
- Documentation and identification local plant diversity.
- Generate interest to choose career prospect on conservation biology.

**Total Lectures: 60 Credits: 3**

**Unit 1:** Biodiversity: Genetic, Species and Ecosystem diversity, Global biodiversity Hot Spots and India; Plant diversity and its scope: wild taxa, cultivated plant taxa and agro-biodiversity; Microbial diversity and uses. Values of Biodiversity (use and non-use values). (12 Lectures)

**Unit 2:** Loss of Biodiversity, agrobiodiversity; Biodiversity management and organizations associated with (IUCN, UNEP, UNESCO, WWF, NBPGR); legislations for biodiversity conservation, Biodiversity information management system (BIOMIS, IBIS, EOLSS). (12 Lectures)

**Unit 3:** Conservation of Biodiversity: Conservation of genetic diversity, species diversity and ecosystem diversity, *In situ* and *ex situ* conservation, Social approaches/movements/TKS of conservation, Biodiversity conservation and sustainable development. (12 Lectures)

**Unit 4:** Role of plants in relation to human welfare; forestry – importance and commercial aspects; NTFPs and their commercial importance, Wild plants of horticultural and floricultural importance; Career opportunities in conservation biology. (12 Lectures)

**Practical:**

**Unit 5:** *Study of biogeographic zones of India:* Preparation of a map of India showing biogeographical zones; Biosphere reserves/Ramsar sites/National Parks/ wildlife Sanctuaries located in different biogeographical zones of India in general and NE region (Assam) in particular.

*Prepare a local plant biodiversity register*

(12 lectures)

**Suggested Readings:**

1. **Chaurvedi Mahendra (2010). Biodiversity and Conservation, DPS Publishing House, Darya Ganj, New Delhi 110002.**
2. Krishnamurthy, K.V. (2004). An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi.
3. Singh Amar Nath and Roy Awadh Kishore (2023) Biodiversity Conservation: Present Scenario and Future Prospects. Walnut Publication, Sector-18, Noida - 201301

**Serial No-36**  
**Plant Diversity and Human Welfare**  
**SEC0303603**  
**(By DK College)**

Learning Objectives:

The objective of this course is to provide adequate knowledge to the students on:

- Various aspects of biodiversity
- Different types of biodiversity and various approaches of its conservation.
- Importance of biodiversity for human welfare.
- Role and scope of Plant Diversity for Human Welfare.

Learning Outcomes:

On successful completion of the course, students will be/will:

- Familiar with scope, dimension and importance as well as threats to plant diversity.
- Acquainted with various approaches and obtain skills related to biodiversity conservation and its sustainable utilization.
- Acquire knowledge about the importance of biodiversity for human welfare.

**Theory:** (Total Marks: 30)

<b>UNITS</b>	<b>CONTENTS</b>	<b>NO. OF LECTURES OR CLASSES (Theory)</b>	<b>MARKS</b>
<b>Unit 1</b>	<b>Plant diversity and its Scope</b> Concepts of Biodiversity, Biodiversity Hot spots; Types of	6	7

	Biodiversity: Genetic diversity, Species diversity, Ecosystem diversity; Agrobiodiversity and its importances; General Values of Biodiversity: Aesthetic value, Ecosystem services value.		
<b>Unit 2</b>	<b>Loss of Biodiversity</b> Threats to plant diversity including agrobiodiversity; Projected scenario for biodiversity loss; Species extinction: Factors responsible	4	5
<b>Unit 3</b>	<b>Management of Plant Biodiversity</b> Various organizations associated with biodiversity management-IUCN, UNEP, UNESCO, WWF, NBPGR; Biodiversity Legislations and Conservation.	4	5
<b>Unit 4</b>	<b>Conservation of Biodiversity</b> Concept of Rare, Endangered and Threatened plants (RET plants); <i>In-situ</i> and <i>ex-situ</i> conservation strategies; Social approaches to biodiversity conservation (Sacred Groves, Peoples movements); National initiatives in biodiversity conservation, Sustainable Development	8	6
<b>Unit 5</b>	<b>Role of Plants in relation to Human Welfare</b> (a) Forest: Its importance and utilization of forest products of commercial importance (b) Garden and Ornamental plants of India (c) Alcoholic beverages through ages (d) Fruits: Major fruit crops with their commercial importance	8	7

**Practical/Project:** Any *one* of the following topic/activity to be undertaken.

(

Total Marks: 25)

1. Study of flora (flowering plants) and its diversity in the college premises or nearby locality.
2. Study of exotic species and its impacts on the biodiversity.
3. Study of diversity of indigenous rice varieties in your locality.
4. Identification and enumeration of forest trees with economic value in your area.
5. Study of availability of fruits/vegetables in different seasons in your locality.
6. Study of economic important plants in the local ecosystem (aquatic or terrestrial).

### Suggested Readings

1. Krishnamurthy, K. V. (2004). An Advanced Text Book of Biodiversity Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd., New Delhi.
2. Singh, J. S., Singh, S. P. and Gupta, S.R. (2014). Ecology, Environmental Science and Conservation (1<sup>st</sup> Edition). S. Chand & Company Pvt. Ltd.

**Serial No-36**  
**Plant Diversity and Human Welfare**  
**SEC0303603**  
**(By JN College)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
  2. Sessional Examination: Total Marks: 20
  3. Practical: Total Marks: 25
  4. Theory Credit: 02; Practical Credit: 01
  5. No. of Required Classes: 30 hours (Theory) + 30 hours (Practical).
- Course Designer: Department of Botany, Jawaharlal Nehru College, Boko.

**Learning Objectives:**

- ❖ Create awareness about the plant diversity.
- ❖ Understand the role of plants in human welfare.
- ❖ Learn about different ornamental plants.
- ❖ To generate interest in the students about the different economically important plants.
- ❖ To know the vegetation type in the locality.

**Learning outcome:**

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

- ❖ Develop understanding of the concept and scope of plant diversity
- ❖ Identify the causes and implications of loss of biodiversity.
- ❖ Apply skills to manage plant diversity.
- ❖ Utilize various strategies for the conservation of biodiversity.
- ❖ Conceptualize the role of plants in human welfare with special reference to India.

**Theory:**

Unit 1: <b>Plant diversity and its Scope</b> -Genetic diversity, Species diversity, Plant diversity at the ecosystem level, Agro-biodiversity and cultivated plant taxa, wild taxa. Values and uses of Biodiversity: Ethical and aesthetic values, Precautionary	Hour : 8 Hours	Marks : 6
--	----------------	-----------

principle, Methodologies for valuation, Uses of plants, Uses of microbes.		
Unit 2: <b>Loss of Biodiversity:</b> Loss of genetic diversity, Loss of species diversity, Loss of ecosystem diversity, Loss of Agro-biodiversity, Projected scenario for biodiversity loss, Management of Plant Biodiversity: Organizations associated with biodiversity management. Methodology for execution-IUCN, UNEP, UNESCO, WWF, NBPGR; Biodiversity legislation and conservations, Biodiversity information management and communication.	Hours: 9 Hours	Marks : 8
Unit 3: <b>Conservation of Biodiversity:</b> Conservation of genetic diversity, species diversity and ecosystem diversity, In situ and ex situ conservation, Social approaches to conservation, Biodiversity awareness programmes, Sustainable development.	Hours: 7 hours	Marks : 8
Unit 4: <b>Role of plants in relation to Human Welfare;</b> a) Importance of forestry their utilization and commercial aspects b) Avenue trees, c) Ornamental plants of India. d) Alcoholic beverages through ages. e) Fruits and nuts: Important fruit crops their commercial importance. f) Wood and its uses.	Hours: 6 hours	Marks : 8

### Practical Classes:

<b>Practical</b>	Hours: 30 hours	Marks: 25
1. Enumerate Agro-biodiversity in your area.		
2. Prepare a list of fermented food items and methods of production found in your locality.		
3. Prepare a list of exotic flora found in your locality.		
4. Study of ornamental plants.		
5. Study of different ecosystem.		
6. Study about vegetation types of your locality.		
7. Study of wild vegetables of your locality.		



\*\*\*

**Serial No-38**  
**Pearl Culture**  
**SEC0303803**  
**(By Pragjyotish College)**

ew and comment on PDFs.

**Skill Enhancement Course**

**Pearl Culture**

**Credits: 3 (Theory: 2 Credits Practical: 1 Credit)**

**Marks: 75**

**Distribution of Marks:**

End Semester Examination – Total Marks:	30
Sessional Examination – Total Marks:	20
Practical – Total Marks:	25

**Learning Outcomes:**

Students after successful completion of the course will be able to

1. Understand the basic concept of pearl culture.
2. Obtain elementary knowledge regarding the Anatomical and Physiological aspects
3. Acquaint with the various types of implantation methods and pearl culture surge
4. Acquire skill on the production of pearl and its marketing for economic gain

**Skills Outcomes:**

On successful completion of this practical course, student shall be able to:

1. Execute pre- pearl culture activities
2. Learn the technique of surgical operation
3. Develop skill of Post operation activities
4. Implement culture activities
5. Perform pearl harvesting

**Theory: 30 hours**

---

<b>Unit 2:</b> Histology of mantle. Natural Process of Pearl formation. Chemical composition of Pearls. Economic importance of pearls.	<b>5ho</b>
<b>Unit3: Pearl oyster culture:</b> Techniques of pearl oyster culture (Fresh water) for artificial production of pearls. Oyster culture, Environmental parameters. Harvesting of pearl, clearing of pearl.	<b>7ho</b>
<b>Unit4:</b> Diseases and Predators of Pearl oysters.	<b>3ho</b>
<b>Unit5:</b> Present status, prospects and problems of pearl industry in India.	<b>3ho</b>
<b>Unit6:</b> Pearl Oyster surgery: Selection of Oyster, Graft tissue preparation, Nucleus insertion, Conditioning for surgery, Post- operative culture, harvesting of pearl, clearing of pearl	<b>8ho</b>

**Practical:** 30 hours

<ul style="list-style-type: none"> <li>➤ Technique for measurement of soil and water</li> <li>➤ Culture technique of microorganism for pond maintenance.</li> <li>➤ *Surgical techniques: Graft tissue preparation, implantation techniques, post operation care</li> </ul>	<b>30 ho</b>
---	--------------

**References:**

- Aquarium Management by A. Saxena
- The living aquarium by P. Hunnam, A. Milne and P. Stebbing
- Breeding and Seed Production of Fin fish and Shell fish by PC Thomas, SC Rath and
- The Pearl Oyster 1<sup>st</sup> Edition by P. Southgate and J. Lucas. Elsevier Science Daya Pul

**SEC Curriculum By:**

**Serial No-39**  
**Aquarium Fisheries**  
**SEC0303903**  
**(By Pragjyotish College)**

iew and comment on PDFs.

**Skill Enhancement Course**

**Aquarium Fisheries**

**Credits: 3 (Theory: 2 Credits Practical: 1 Credit)**

**Marks: 75**

**Distribution of Marks:**

End Semester Examination – Total Marks:	30
Sessional Examination – Total Marks:	20
Practical – Total Marks:	25

**Learning Objectives:**

The Learning Objectives of this course are as follows:

1. To give first-hand training on Aquarium preparation and decoration.
2. To gain hands-on training on breeding and culture of various Ornamental fish.
3. To gain experience in the management of optimum water quality in the aquarium.
4. To gather knowledge on the nutritional requirements of the cultivable fish.

**Learning Outcomes:**

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

1. Prepare and decorate ornamental fish aquarium.
2. Identify the suitable and economically important Ornamental fish species.
3. Initiate entrepreneurship on Aquarium making and Ornamental fish production.

**Theory:** 30 hours

Water quality requirements.	
<b>Unit 2: Aquarium Management:</b> Setting up of aquarium – under gravel filter, pebbles, plants, drift wood, ornamental objects and selection of fishes, Quarantine measures. Aquarium maintenance and water quality management. Control of snail and algal growth. Handling, care, packing and transportation of fishes - Use of anesthetics. Temperature acclimation.	<b>8 h</b>
<b>Unit 3: Freshwater Ornamental Fishes:</b> Indigenous and exotic ornamental fishes in Assam. Biology (maturation, secondary sexual characters, breeding habits, spawning, parental care, fertilization and development of eggs) of two Indigenous and two exotic ornamental fishes	<b>7 h</b>
<b>Unit 4: Freshwater aquarium plants:</b> Common aquarium plants and its morphology.	<b>3 h</b>
<b>Unit 5: Commercial Production:</b> Requirements and design for the commercial production of ornamental fishes. Commercial production of goldfish, live bearers, gouramies, barbs and tetras, angel fish. Natural ponds for the mass production of ornamental fishes. Mass production of aquarium	<b>7 h</b>

plants.

**Practical:** 30 hours

<ul style="list-style-type: none"> <li>➤ Construction of a glass aquarium.</li> <li>➤ Identification of aquarium fishes.</li> <li>➤ Identification of aquarium plants.</li> <li>➤ Field/Laboratory visit</li> </ul>	<b>30</b>
---	-----------

**References:**

- Saxena A. Aquarium Management.
- Hunnam P., Milne A., Stebbing P. The living aquarium.

## **Serial No-40**

### **Women Entrepreneurship and rural Development**

**SEC0304003**

**(By Hatichong College)**

#### Distribution of Marks:

- |   |    |
|---|----|
| 1. End Semester Examination: Total Marks: | 30 |
| 2. Sessional Examination: Total Marks:    | 20 |
| 3. Practical: Total Marks:                | 25 |

Theory Credit	02
Practical Credit	01
No. of Required Classes	30 hours (Theory) + 30 hours (Practical)

Particulars of Course Designer                      Department of Economics, Hatichong College, Nagaon, Assam

#### **Learning Objectives / Graduate attributes**

- To understand the role of women in entrepreneurship and its impact on rural development.
- To develop entrepreneurial skills in rural contexts.
- To investigate government initiatives, regulations, and programs that assist women entrepreneurs in rural areas.
- To analyse case studies of successful women entrepreneurs in rural settings.

#### **Learning outcomes**

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

- Understand the Role of Women in Rural Development.
- Learn the fundamentals of entrepreneurship, with an emphasis on rural settings, such as idea formulation, financial management, and planning.
- Gain comprehensive knowledge of government schemes, policies, and support systems aimed at empowering women entrepreneurs in rural areas and the support systems.
- Create and Manage Rural Enterprises.

- Understand the connection between women’s entrepreneurship and sustainable rural development, contributing to poverty alleviation, job creation, and social empowerment.
- Develop Practical Skills through Case Studies and Fieldwork.

## Theory

Unit	Hours	Marks
<b>Unit 1: Introduction to Rural Development and Women’s Role</b> Definition, Scope, and Importance, Challenges in Rural Development: Poverty, Infrastructure, and Resources, The Importance of Women's Participation in Rural Development	5	5
<b>Unit 2: Concept of Entrepreneurship</b> 2. 1 Meaning and Types of Entrepreneurship, Characteristics of an Entrepreneur, The Role of Entrepreneurship in Economic Development 2.2 Women Entrepreneurship: Meaning and importance, Challenges and Opportunities for Women Entrepreneurs, Case Studies of Successful Women Entrepreneurs in Rural Areas	10	10
<b>Unit 3: Rural Entrepreneurship and Development</b> 3.1 Concept and Scope of Rural Entrepreneurship, Types of Rural Enterprises: Agriculture, Handicrafts, Agro-Processing, etc., the role of rural enterprise in rural development 3.2 Government Policies and Support for Women Entrepreneurs: Overview of Key Schemes: Mudra Yojana, Stand-Up India, PMEGP, Role of SHGs, NGOs, and Cooperatives in Supporting Women Entrepreneurs	10	10
<b>Unit 4: Finance</b> Sources of Finance for Rural enterprises: Microfinance, banking, Government Grants etc.	5	5

## Practical

Unit	Hours	Marks
<b>Assignment</b>	5	5
<b>Field Work and Case studies</b> Visits to Successful Women-led Rural Enterprises, Interaction with Women Entrepreneurs and Rural Leaders, Analysis of Case Studies of Women Entrepreneurship in Rural Settings	15	10

## Recommended Reading:

- "Rural Women in India: Socio-Economic Perspectives" by JyotiChoudhury
- "Gender and Development" by Janet Momsen
- "Empowering Rural Women" by Neera Desai and UshaThakkar
- "Entrepreneurship Development" by S.S. Khanka
- Women Entrepreneurs in India: Challenges and Achievements" by L. Rathakrishnan
- "Rural Development: Principles, Policies, and Management" by Katar Singh
- Rural Women and Development by S.P. Singh
- Government Reports on Women Empowerment and Rural Development

Course designer: Bubu Sensowa, HoD, Department of Economics, Hatichong College, Nagaon, Assam



**Serial No-41**  
**Building Academic Skills In English Creative Writing**  
**SEC0304103**  
**(By Narengi College)**

Distribution of Marks:

- |  |    |
|--|----|
| 1. End Semester Examination : Total marks: | 30 |
| 2. Sessional Examination: Total marks :    | 20 |
| 3. Practical: Total marks:                 | 25 |

Theory Credit	02
Practical Credit	01
No of required Classes	30 Hours Theory+30 Hours Practical
No of Non-Contact Classes	00
Course Designed by	Department of English, Narangi Anchalik
Mahavidyalaya	

**LEARNING OBJECTIVES**

1. Correlate between listening and Writing Skills
2. Describe strategies for improving writing skills at various levels.
3. Ability to write English correctly.
4. Develop their communicative Skills.

**LEARNING OUTCOMES**

1. Understand the basics of Academic Writing
2. Write formal , goodwill letters and e-mails.
3. Introduce oneself and others in a formal setup.
4. Train their imagination and Increases their creativity
5. Improves their English skills

**THEORY**

- Unit-1 Introduction to Academic Writing – Characteristics/Style in Academic Writing  
Unit-2 Paragraph Writing, Summary Writing, Note making, Notice Writing,  
Unit 3 Formal Letters, Resume Writing, E-mails, Leave Note, Enquiries, Complaints, Good will Letters, Thank You and Congratulations  
Unit-4 Comprehension- Close Reading, Skimming, Scanning, Selections of audio

content that could be based on interesting topics.

Unit- 5 Essay Writing, Diary Writing, Report Writing, Feature:Article/Interview)  
PRACTICAL

1. Book Reviews
2. Movie Reviews
3. Writing Prompts
4. Picture Storytelling
5. Poetry Reading Sessions
6. Writing CV
7. Presentation of Short Skits
8. Creating Jingles

References

1. B.Yadavraju, C Murlikrishna .Advantage English. Orient Blackswan,2009
2. Das, Shipan, English Composition Writing, Flying Hands Publications. 2023. ISBN 81957333.
3. Dorado, El , A Textbook of Communication Skills. Orient Blackswan Private Ltd.2013 ISBN 978812505391
4. Doubtfire, Dianne, Creative Writing, Paperback Binding, 1996 ISBN 9780340658338
5. Gangal, J.K. A Practical in Effective English –Speaking Skills. PHI Learning Private Limited, 2012

**Serial No-42**  
**Mushroom Cultivation Technology**  
**SEC0304203**  
**(By Dept. Of Political Science,GU)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required Classes 30 hours (Theory) + 30 hours (Practical) (If you don't have practical then for theory, you will have 45 hours contact classes. For each theory credit, 15 hours contact classes while for 1 practical credit, there will be 30 hours)
  - No. of Non-Contact Classes 00
  - Particulars of Course Designer Department of Botany, Gauhati University

**Learning objectives:**

- ❖ Understand the basics of mushroom by enabling students to identify edible and poisonous mushrooms
- ❖ Develop interest in mushroom cultivation
- ❖ Provide hands on training for the preparation of spawn and mushroom bed for mushroom cultivation
- ❖ Learn various post-harvest technology associated to mushroom cultivation
- ❖ Identify and manage Insect-Pests affecting mushroom
- ❖ Help the students to learn a means of self-employment and income generation

**Learning outcomes:**

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

- ❖ Identify edible and poisonous mushrooms
- ❖ Gain the knowledge of cultivation of edible mushrooms and spawn production; and various post-harvest technology associated to mushroom cultivation
- ❖ Manage various diseases and pests of mushrooms
- ❖ Learn the way of self-employment and income generation

**THEORY (There should be minimum 1 unit for 1 theory credit)**

<b>Unit 1: Introduction to mushrooms</b>		
Mushrooms - taxonomic rank. Different parts of typical mushroom; structure and texture of fruitbodies - Gilled fungi and pore fungi; Life	Hours:	Marks:

cycle of mushrooms; various habitats of mushrooms - Lignicolous, Humicolous and Coprophilous; Symbiotic associations - Mycorrhiza.		
<b>Unit 2: Cultivation of Mushrooms</b> History, scope, and opportunities of mushroom cultivation. Problem in cultivation - diseases, pests, and nematodes and their management strategies.	Hours:	Marks:
<b>Unit 3: Health benefits of mushrooms</b> Historical uses of mushrooms; Nutrient profile of mushrooms - Amino acids, Protein, Carbohydrates, fats, minerals, and vitamins; Therapeutic aspects-antioxidant, antimicrobial, antidiabetic, anticancer effect; stimulating vitamin D production in mushrooms.	Hours:	Marks:
<b>Unit 4: Common edible and poisonous mushrooms</b> Edible Mushrooms - Oyster mushroom ( <i>Pleurotus ostreatus</i> ), paddy straw mushroom ( <i>Volvariella volvacea</i> ), Button mushroom ( <i>Agaricus bisporus</i> ); Poisonous mushroom – False parasol or green-spored parasol ( <i>Chlorophyllum molybdites</i> ).	Hours:	Marks:
<b>Unit 5: Principles of mushroom cultivation</b> Structure and construction of mushroom house; Spawn production - culture media preparation, isolation of pure culture, mother spawn, multiplication of spawn; Sterilization of substrates. Composting techniques, mushroom bed preparation; Spawning, spawn running, harvesting. Cultivation of oyster mushroom.	Hours:	Marks:
<b>Unit 6: Post harvest technology</b> Preservation of mushrooms - freezing, drying, and packaging, quality assurance, shelf life, market opportunities. Value added products of mushrooms.	Hours:	Marks:

**PRACTICAL (You may not have practical)**

<ol style="list-style-type: none"> <li>1. Preparation of media for mushroom culture</li> <li>2. Preparation of pure culture</li> <li>3. Production of spawn</li> <li>4. Cultivation of oyster mushroom using paddy straw/lignocellulosic wastes.</li> <li>5. Estimation of antioxidant properties (Reducing power, Total antioxidant capacity) and phytochemical content (phenol, flavonoid, lycopene, <math>\beta</math>-carotene) of mushroom</li> </ol>	Hours: 30	Marks: 25
--	--------------	--------------

## **Suggested Readings**

1. Purkayastha RP, Chandra A (1985) Manual of Indian edible Mushrooms. Today and Tomorrows Printers and Publishers, New Delhi.
2. Pathak VN, Yadav N (1998) Mushroom Production and Processing Technology. Agrobios, Jodhpur.
3. Tripathi DP (2005) Mushroom Cultivation. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
4. Pandey RK, GhoshSK (1996) A Hand Book on Mushroom Cultivation. Emkey Publications.
5. Hait G (2023) Introductory Botany (Biofertilizer and Organic Farming, Herbal technology, Mushroom Culture Technology). Vol - I, Global Net Publication, New Delhi.
6. PathakVN, YadavN, GaurM (2000) Mushroom Production and Processing Technology. VedamsEbooksPvt. Ltd., New Delhi.

\*\*\*\*\*

**Serial No-42**  
**Mushroom Cultivation Technology**  
**SEC0304203**  
**(By Mangaldai College)**

**Theory: (Total Marks-50, Credit- 2); Practical :( Total Marks- 25, Credit-1)**

**Distribution of marks:**

End Semester Exam- Total marks: 30

Sessional Examination- Total marks: 20

Practical Examination- Total Marks: 25

**THEORY (Total Marks-50, Credit- 2):**

Unit	Unit content	No. of Classes	Marks
<b>Unit 1</b>	<b>Introduction to Mushroom Cultivation:</b> History, scope, and opportunities of mushroom cultivation. Problems faced in mushroom cultivation and their management strategies. Characterization of edible and poisonous Mushrooms. Nutritional and medicinal value of mushrooms.	6	10
<b>Unit 2</b>	<b>Principle of Mushroom Cultivation:</b> Structure and construction of mushroom house; Spawn production; Sterilization of substrates. Composting techniques, Mushroom bed preparation, Harvesting.	9	15
<b>Unit 3</b>	<b>Cultivation of Common Edible Mushrooms:</b> Cultivation process of Oyster mushroom( <i>Pleurotusostreatus</i> ), Paddy straw mushroom ( <i>Volvariellavolvacea</i> ), Button mushroom ( <i>Agaricusbisporus</i> )	9	15

<b>Unit 4</b>	<b>Post-Harvest Technology:</b> Preservation of mushrooms- freezing, drying, and packaging of harvested mushrooms, Quality assurance, Market opportunities. Value added products of mushrooms.	6	10
---------------	---	---	----

**PRACTICAL (Total Marks- 25, Credit-1):**

<b>Cultivation of Oyster mushroom:</b>	<b>No. of Classes</b>	<b>Marks</b>
1. Sterilization of mushroom house and substrate for Oyster mushroom cultivation.	30	25
2. Bagging of spawn.		
3. Packaging of harvested mushroom products.		
4. Phytochemical assay (phenol, flavonoid, alkaloids and tannins) of mushroom.		

**Learning Objectives:**

- To make students understand the basics and develop interest in mushroom cultivation techniques
- To enable students differentiate between edible and poisonous mushrooms.
- To provide hands on training on cultivation of Oyster mushroom and phytochemical analysis.
- To acquaint students with various post-harvest technology and value-added products associated with mushroom cultivation.
- To help the students for self-employment through mushroom cultivation.

**Learning Outcome:**



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

- Identify edible and poisonous mushrooms.
- Gain the knowledge on cultivation of edible mushrooms and their nutritional value as well as various post-harvest technologies associated to mushroom cultivation.
- Self-employment and income generation.

### **Suggested Readings**

1. Purkayastha RP, Chandra A (1985) **Manual of Indian edible Mushrooms**. Today and Tomorrows Printers and Publishers, New Delhi.
2. Pathak VN, Yadav N (1998) **Mushroom Production and Processing Technology**. Agrobios, Jodhpur.
3. Tripathi DP (2005) **Mushroom Cultivation**. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
4. Pandey RK, Ghosh SK (1996) **A Hand Book on Mushroom Cultivation**. Emkey Publications.
5. Pathak VN, Yadav N, Gaur M (2000) **Mushroom Production and Processing Technology**. Vedams Ebooks Pvt. Ltd., New Delhi.

**Serial No-43**

:সৃজনীমূলক সাহিত্য-III

**SEC0304303**

**(By Narengi College)**

দক্ষতা বিকাশ পাঠ্যক্রম (অসমীয়া)

নাৰেংগী আঞ্চলিক মহাবিদ্যালয়

SKILL ENHANCEMENT COURSE (SEC)

সৃজনীমূলক সাহিত্য

Credits:3 (Marks: 75)

Distribution of Marks:

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

> Theory Credit 02

> Practical Credit 01

> No. of Required Classes 30 hours (Theory) + 30 hours (Practical)

For each theory credit, there will be 15 hours contact classes while for 1 practical credit, there will be 30 hours)

পাঠ্যক্রমৰ বশেষিট্ৰ, অসমীয়া বিভাগ, নাৰেংগী আঞ্চলিক মহাবিদ্যালয়

পাঠ্যক্রমৰ উদ্দেশ্য:

ক) সৃজনীমূলক সাহিত্যৰ বিষয়ে সাধাৰণ জ্ঞান

- ক) সৃজনীমূলক সাহিত্য বচনাৰ বাবে আগ্ৰহ বৃদ্ধি কৰা  
গ) সৃজনীমূলক সাহিত্য বচনাৰ বাবে হাতে-কামে দিয়া প্ৰশিক্ষণ  
ঘ) সৃজনীমূলক সাহিত্য বচনাৰ বিভিন্ন কৌশল আহৰণ  
ঙ) শিক্ষাৰ্থীসকলক নয়োপৰাপ্তি অথবা স্বনয়োজনত সহায় কৰা

এই শিক্ষা সফলতাৰে গ্ৰহণ কৰাৰ পাছত শিক্ষাৰ্থীসকল কেইটামান দৰ্শিত লাভবান হ'ব যেনে :-

- ক) তেওঁলোকৰ প্ৰতিভা বিকশিত সহায়ক হ'ব  
খ) বিভিন্ন ধৰণৰ সৃজনীমূলক সাহিত্যৰ বিষয়ে জ্ঞান লাভ  
গ) টিভি, বাতৰি কাকত, প্ৰছে, থিয়েটাৰ, চনিমো আদি বিভিন্ন ক্ষেত্ৰত নয়োপৰ সুবিধাৰ লগতে স্ব-নয়োজনৰ সুবিধা

THEORY (There should be minimum 1 unit for each theory credit)

Unit 1: Hours (10) Marks (20)

- ক) সৃজনীমূলক সাহিত্য কি?  
খ) কল্পনা কি আৰু সৃজনীমূলক সাহিত্যত ইয়াৰ ভূমিকা  
গ) কল্পনাৰ কৰ্ষণ বা উন্নয়ন  
ঘ) সৃজনীমূলক সাহিত্য বচনাৰ প্ৰয়োজনীয় যোগ্যতা

Unit 2: Hours (10) Marks 20

- ক) পৰম্পৰাগত আৰু আধুনিক কবিতা, নাটক, চুটগল্প, উপন্যাস আদি  
খ) পটভূমি নিৰ্বাচন  
গ) বৰ্ণনাৰ কলা  
ঘ) নিজৰ লিখনিৰ সম্পাদনা

Unit 3: Hours (10) Marks (10)

- ক) লিখনিৰ বীজ ৰোপণ

খ) সৃজনীমূলক সাহিত্যৰ বাবে ক্ৰমেৰে অধ্যয়ন

গ) সৃজনীমূলক সাহিত্যৰ আৰম্ভণি বিন্দু

ঘ) সৃজনীমূলক সাহিত্যৰ চানকেলি লিখন

PRACTICAL Hours (30) Marks (25)

ক) ক্ৰমেৰে অধ্যয়ন

খ) ব্যৱহাৰিক ভাবে লিখাৰ অভ্যাস

Reference books for creative writing:

1. "The Elements of Style" by William Strunk Jr. and E.B. White
2. "On Writing: A Memoir of the Craft" by Stephen King
3. "Bird by Bird: Some Instructions on Writing and Life" by Anne Lamott
4. "The Writing Life" by Annie Dillard
5. "Self-Editing for Fiction Writers" by Renni Browne and Dave King
6. "The 3 A.M. Epiphany" by Brian Kitley
7. "The Sound on the Page" by Ben Yagoda
8. "Zen in the Art of Writing" by Ray Bradbury
9. "The War of Art: Break Through the Blocks and Win Your Inner Creative Battles" by Steven Pressfield
10. "How Fiction Works" by James Wood

**Serial No-43**

:সৃজনীমূলক সাহিত্য-III

**SEC0304303**

**(By R.G.M. College)**

Paper code -ASM-SE-03.....

Total Credits-3

Total Marks-100.

Theory-50,practical-30,Internal-20. (Theory=25 Classes, one hour each=25 hours. Practical=10 Classes, Two hours each Classes=20 hours)

(এই পাঠ্যৰাজৰিয়তে কবিতা আৰু গল্প লিখাৰ প্ৰাথমিক আৰু ব্যৱহাৰিক জ্ঞানপ্ৰদান কৰা হ'ব।)

**প্ৰথম গোট:** কল্পনাৰ সংজ্ঞা আৰু পৰিসৰ,

কল্পনাৰ কৰ্ষণ,

সৃজনীমূলক সাহিত্য ৰচনাৰ প্ৰয়োজনীয় যোগ্যতা,

**দ্বিতীয় গোট:** আধুনিক কবিতা: সংজ্ঞা আৰু বৈশিষ্ট্য,

আধুনিক কবিতাৰ পটভূমি,

আধুনিক কবিতাৰ ভাষা,

**তৃতীয় গোট:** গল্পৰ বীজৰোপণ,

গল্প ৰচনাৰ বাবে ক্ষেত্ৰ অধ্যয়ন,

গল্পৰ নিৰ্মাণ,

**চতুৰ্থ গোট:** কবিতা আৰু গল্পৰ আৰ্হি প্ৰস্তুতকৰণ।

সহায়ক গ্ৰন্থ:

সৃজনীমূলক সাহিত্য: প্ৰেৰণা আৰু আৰ্হি: অতনুভট্টাচাৰ্য।

ৰমন্যাসবাদ: মহেন্দ্ৰ বৰা।

আধুনিক অসমীয়া কবিতা: কামালউদ্দিন আহমেদ।

आधुनिकतावादआरु अन्यान्य प्ररुङ्गः हरेकृषु डेका।

कविआरु कविताः डः ननुद तलुकदारु।

**Serial No-44**  
**Tour Package Management**  
**SEC0304403**  
**(By Tezpur College)**

**Skill Enhancement Course (SEC)**

**Tour Package Management**

**Credits: 3 (Marks: 75)**

**Distribution of Marks**

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical Total Marks:	25
➤ Theory Credit	02
➤ Practical Credit	01
➤ No of Class required Classes	30
➤ Particular of Course Designer	Department of Touris Management, Tezpur

**Learning objectives:**

- ❖ It provides a clear understanding of the travel, tourism and hosp: how it functions and plays an important role in today's world.

the requirements of this dynamic industry.

**Learning Outcomes**

- ❖ To make students gear up to work in the different fields of tourism and government sectors.
- ❖ To train them to become entrepreneurs and to create their own ide

**Theory**

**Unit-I: Conceptual Framework**

Definition, Meaning, types, forms of tourism- inbound, outbound, Natic and International, components of tourism.

**Unit -II: Tour Package**

Meaning of Tour package, classification of tour package, importance Tour Package, component of Tour Package.

**Unit: III: Itinerary Planning**

Concept of Itinerary, Importance of Itinerary, Steps of Itinerary Plan Do's and Don'ts in Itinerary preparation.

**Unit-IV- Communication skills and personal attributes of tou professionals**

**Skills:** Social and verbal fluency, thorough knowledge of destinations.

**Qualities:** Decision making ability, Leadership Qualities, Motivati Quality, Handling difficulty/ demanding Tourists etc.

**Personality:** Mannerism, Professionalism, Punctuality and Story Teller.

**Practical**

Preparation of Itinerary and tour package, Tour Brochure Designing

Referred Books:



**Serial No-45**  
**Content Writing**  
**SEC0304503**  
**(By Lakhimpur College)**

**Skill Enhancement Course (SEC)**  
**Content Writing**  
**FYUGP 3<sup>rd</sup> Semester**  
**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No. of Required Classes 30 hours (Theory) + 30 hours (Practical) (If you don't have practical then for theory (3 credits), you will have 4 classes. For each theory credit, there will be 15 hours contact hours. For each practical credit, there will be 30 hours)
- Particulars of Course Designer Department of English, Lakhimpur College

**Graduate Attributes: Course Objective**

This paper is designed to equip students with the skills and knowledge to create high-quality, engaging, and effective written content across various digital platforms. Students will here be expected to understand the principles of effective content creation, including audience analysis, tone, and style.

They are expected to develop a clear and compelling writing style tailored to various content formats, such as blogs, articles, social media posts, and web copy.

- ❖ Develop Writing Skills
- ❖ Master Research and Structuring Techniques
- ❖ Create Specialized Content
- ❖ Understand Content Marketing and Strategy
- ❖ Prepare for a Career in Content Writing

**Theory: 2 Credits** (15 classes per Credit)

**Unit 1: Introduction to Content Writing Overview of Content Writing**

- Definition and scope of content writing
- The importance of content in digital marketing
- Different types of content (articles, blogs, social media posts, etc.)
- Understanding the target audience



**The Writing Process**

- Idea generation and brainstorming techniques
- Research and information gathering
- Outlining and structuring content

- Drafting and editing content

### **Unit 2: Writing Fundamentals**

- Crafting effective headlines
- The impact of headlines on readership
- Tips for writing compelling headlines
- Analyzing successful headline examples

#### Writing Clear and Engaging Content

- Writing with clarity and conciseness
- Maintaining readability and flow
- Writing with purpose and intent
- Avoiding common grammatical mistakes
- The art of storytelling in content

#### Tone and Style in Writing

- Understanding tone and voice
- Adapting writing style to different platforms
- Balancing professionalism and creativity
- Establishing a consistent brand voice

### **Unit 3: Specialized Content Writing : Blogging and Article Writing**

- Writing for Blogs: Types of blogs (informative, personal, business, et
- Structuring blog posts and articles

#### Writing for Social Media

- Understanding different social media platforms
- Writing for different social media platforms
- Crafting content for various platforms (Facebook, Twitter, Instagram, et
- Writing engaging social media captions
- Incorporating visuals and hashtags
- Best practices for social media engagement

#### Writing for Webpages and Product Descriptions

- Writing clear and persuasive web content
- Best practices for homepage, about us, and service pages
- Creating compelling product descriptions
- Techniques for driving conversions through web content

#### SEO and Content Writing

- 
- Creating content that ranks

#### **Unit 4: Advanced Content Writing Skills**

- Copywriting Basics
- What is copywriting?
- Differences between content writing and copywriting
- Techniques for writing persuasive copy
- Case studies of successful copywriting- Editing and Proofreading
- Importance of editing and proofreading
- Common writing mistakes to avoid
- Techniques for self-editing
- Tools and resources for proofreading

#### **Unit 5: Building a Career in Content Writing**

- Creating a Content Portfolio
- Importance of a strong portfolio
- Building and showcasing a portfolio
- Building a personal brand as a content

#### **Freelancing and Job Opportunities**

- Understanding the freelance content writing market
- Tips for finding and pitching clients
- Networking and building professional relationships
- Writing proposals and negotiating contracts

- Content Marketing Strategies

- 
- Measuring content performance and ROI

Practical :

1 Credit

30 classes

- Content Creation Practical

---

Developing a comprehensive content project  
blog series,  
social media campaign,  
website content

- Peer reviews and feedback
- Presentation of the final project

#### **Assessment**

Recommended Reading

'Advanced Writing Skills 'by D. S. Paul

'Fundamentals of Writing 'by Paul Lima

'Mastering Content Writing'

**Serial No-46**  
**Fuel Chemistry**  
**SEC0304603**

**(By Barnagar College)**

**Full Marks=75** [End Semester Examination (30) + Internal Assessment (20) + Literature Survey / Project work (25)]

**Course Objectives:** *This course discusses about the chemistry of various sources of energy. Students are expected to learn about the composition of coal and petroleum products, their extraction, purification methods and usage. A section also covers classification and applications of natural and synthetic lubricants. Students will also learn about the determination and significance of various industrially relevant physical parameters for different fuels and lubricants.*

**Learning Outcomes:** *At the end of this course students will learn about the classes of renewable and non-renewable energy sources. Students will learn about the composition of coal and crude petroleum, their classification, isolation of coal and petroleum products and their usage in various industries. They will also learn to determine industrially significant physical parameters for fuels and lubricants.*

**Introduction:**

**(5 h)**

Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value.

**Coal:**

**(15 h)**

Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal. Coal gas, producer gas and water gas-composition and uses. Fractionation of coal tar, uses of coal tar bases chemicals, requisites of a good metallurgical coke, Coal gasification (Hydro gasification and Catalytic gasification), Coal liquefaction and Solvent Refining.

**Petroleum and Petrochemical Industry:**

**(15 h)**

Composition of crude petroleum, Refining and different types of petroleum products and their applications.

Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking), Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass), fuel from waste, synthetic fuels (gaseous and liquids), clean fuels.

Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene, Butadiene, Toluene and its derivatives Xylene.

**Lubricants:**

**(10 h)**

Classification of lubricants, lubricating oils (conducting and non-conducting)  
Solid and semisolid lubricants, synthetic lubricants.

Properties of lubricants (viscosity index, cloud point, pour point) and their determination.

**Literature Survey/Project Work:** (Literature Survey on any topic of the syllabus or Investigatory Project work may be assigned to students):

**Recommended Books:**

1. E. Stocchi: *Industrial Chemistry*, Vol -I, Ellis Horwood Ltd. UK.
2. P.C. Jain, M. Jain: *Engineering Chemistry*, Dhanpat Rai & Sons, Delhi.
3. B.K. Sharma: *Industrial Chemistry*, Goel Publishing House, Meerut

**Particulars of Course Designer** (Name, Institution, email id):

- 1) Dr. Diganta Bhuyan, Barnagar College, digantabhuyan@barnagarcollege.ac.in

**Serial No-46**  
**Fuel Chemistry**  
**SEC0304603**  
**(By GLC College)**

**Course Objectives:** *This course discusses about the chemistry of various sources of energy. Students are expected to learn about the composition of coal and petroleum products, their extraction, purification methods and usage. A section also covers classification and applications of natural and synthetic lubricants. Students will also learn about the determination and significance of various industrially relevant physical parameters for different fuels and lubricants.*

**Learning Outcomes:** *At the end of this course students will learn about the classes of renewable and non-renewable energy sources. Students will learn about the composition of coal and crude petroleum, their classification, isolation of coal and petroleum products and their usage in various industries. They will also learn to determine industrially significant physical parameters for fuels and lubricants.*

**Theory**

Unit	Topic	Hours	Marks
Unit 1	Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value.	3	5
Unit 2	Coal: Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal. Coal gas, producer gas and water gas—composition and uses. Fractionation of coal tar, uses of coal tar bases chemicals, requisites of a good metallurgical coke, Coal gasification (Hydro gasification and Catalytic gasification), Coal liquefaction and Solvent Refining.	10	7
Unit 3	Petroleum and Petrochemical Industry: Composition of crude petroleum, Refining and different types of petroleum products and their applications. Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking), Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass), fuel from waste, synthetic fuels (gaseous and liquids), clean fuels.	10	8
Unit 4	Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene, Butadiene, Toluene and its derivatives Xylene.	3	5
Unit 5	Lubricants: Classification of lubricants, lubricating oils (conducting and non-conducting) Solid and semisolid lubricants, synthetic lubricants. Properties of lubricants (viscosity index, cloud point, pour point) and their determination.	4	5

**Practical/Project:** Literature review on development on harnessing a particular renewable energy including pros and cons.

**Marks: 25**

**Recommended Books:**

1. E. Stocchi: Industrial Chemistry, Vol -I, Ellis Horwood Ltd. UK.
2. P.C. Jain, M. Jain: Engineering Chemistry, DhanpatRai& Sons, Delhi.
3. B.K. Sharma: Industrial Chemistry, Goel Publishing House, Meerut.

**Serial No-46**  
**Fuel Chemistry**  
**SEC0304603**  
**(By Tihu College)**

*Skill Enhancement Course (SEC)*

**Fuel Chemistry**

Credits: 3 (Marks: 75)

(Credits: 03) 45 Lectures

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 45

2. Internal/Sessional Examination: Total Marks: 30

- Theory Credit 03
- No. of Required Classes 45 hours (Theory)
- Particulars of Course Designer Department of Chemistry, Tihu Colle

**Learning Objectives:**

- To learn about the composition of coal and petroleum products, their ex methods and usage.
- To know the importance of renewable cleaner energy sources and optimi renewable fossil fuels.
- To understand about the different methods of purification.

**Learning Outcomes:**

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

- Explain about the classes of renewable and non-renewable energy sources.
- Learn about the composition of coal and crude petroleum, their classificati and petroleum products and their usage in various industries.



## THEORY

### **Unit 1: Fuel and Coal**

Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value.

Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal. Coal gas, producer gas and water gas—composition and uses. Fractionation of coal tar, uses of coal tar bases chemicals, requisites of a good metallurgical coke, Coal gasification (Hydro gasification and Catalytic gasification), Coal liquefaction and Solvent Refining.

### **Unit 2: Petroleum and Petrochemical Industry**

Composition of crude petroleum, Refining and different types of petroleum products and their applications.

### **Unit 2: Petroleum and Petrochemical Industry**

Composition of crude petroleum, Refining and different types of petroleum products and their applications.

Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene, Butadiene, Toluene and its derivatives Xylene.

### **Unit 3: Methods of purification**

Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking), Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass), fuel from waste, synthetic fuels (gaseous and liquids), clean fuels.

### **Recommended Books**

**Serial No-46**  
**Fuel Chemistry**  
**SEC0304603**  
**(By Rupahi College)**

*Skill Enhancement Course (SEC)*

**Fuel Chemistry**

**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

- |   |    |
|---|----|
| 1. End Semester Examination: Total Marks:                           | 30 |
| 2. Sessional Examination: Total Marks:                              | 20 |
| 3. Practical: Total Marks:  | 25 |
|   |    |
| ➤ Theory Credit   | 02 |
| ➤ Practical Credit  | 01 |
| ➤ No. of Required Classes: 30 hours (Theory) + 30 hours (Practical) |    |
| ➤ No. of Non-Contact Classes  | 00 |
| ➤ Particulars of Course Designer: Dr. Chinmoy Kalita, Departm       |    |

**Learning objectives:**

- ❖ Overview of the energy sources.
- ❖ Knowledge about the coal composition and its carbonization.
- ❖ A brief introduction about the composition of crude petroleum and their ;
- ❖ Emphasizes the importance of petrochemicals and their synthesis.

**THEORY**

<b>Unit 1: Review of Energy Sources</b> Review of energy sources. Classification of fuels and their calorific values.	Ho
--	----

<b>Unit 2: Coal</b> Coal, Composition of coal, Types of coal, Analysis of coal, Proximate analysis of coal, Ultimate analysis of coal, Analysis of Carbon, Hydrogen and Oxygen in coal, Uses of coal, Natural Gas, Producer Gas, Water Gas, General use of coal tar, Light and Heavy oil.	H
<b>Unit 3: Petrochemicals</b> Introduction, Consumption of petroleum products, Classification of petrochemicals, Vinyl acetate, Isoprene, Butadiene, Aromatic petrochemicals, Aromatic conversion processes	H

**PRACTICAL (Fuel Chemistry)**

<ol style="list-style-type: none"> <li>1. Measurement of Viscosity of lubricating oil</li> <li>2. Calorific Value Determination: Measure the energy released when a fuel burns, using a bomb calorimeter.</li> <li>3. Water content determination: Measure the water content in fuels.</li> </ol>	F
---	---

**Serial No-47**

**Programming in Python**

**SEC0304703**

**(By Tihu College)**

Skill Enhancement Course (SEC)  
Programming in Python  
Credits: 3 (Marks: 75)

**A curriculum developed by:**

Dr. Atanu Nath, Asst. Prof., Dept. of Physics, Tihu College, Tihu

**Distribution of Marks:**

1. End Semester Examination: 30 Marks
2. Sessional Examination: 20 Marks
3. Practical: 25 Marks

- Theory Credit: 02
- Practical Credit: 01
- No. of Required Classes: 30 hours (Theory) + 30 hours (Practical)

**Learning Objectives:**

- Introduce students to the fundamentals of programming and computer science.
- Equip students with the ability to write basic Python programs.
- Foster understanding of Python's relevance in scientific computing and data analysis.
- Enable students to apply Python programming to solve simple physical problems.

**Learning Outcomes:**

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

- Grasp the fundamentals of programming and algorithm design, providing a foundation for scientific research and problem-solving.
- Write Python programs to perform mathematical operations and solve problems, empowering them to tackle challenges in both academic and professional settings.
- Utilise powerful libraries like NumPy, SciPy, and Matplotlib for data analysis and visualisation, equipping them with essential skills for data science.
- Read from and write to files, and generate insightful plots for scientific data, making them ready to contribute to cutting-edge research and development.
- Enhance their employability in scientific research and industries, where data-driven decision-making and automation are key.

### Course Structure:

	Hours
<b>Unit I: What is Programming?</b> Definition and purpose of programming. Basics of algorithms and their significance in problem solving. Introduction to computational thinking.	3
<b>Unit II: Introduction to Python</b> What is Python? Why choose Python? Installing Python and IDEs (Visual Studio Code, Jupyter Lab) on Linux and Windows. First steps with Python: Running simple Python commands.	4
<b>Unit III: Basics of Python Programming</b> Python syntax, variables, and data types. Control structures: loops and conditionals. Writing functions and basic mathematical operations. Understanding lists and basic list operations.	9
<b>Unit IV: Introduction to Python Libraries</b> Libraries in Python. Introduction to NumPy and SciPy. Manipulating and sorting lists of numbers. Writing functions for mathematical computations. Using NumPy and SciPy for basic arithmetic and mathematical problem-solving.	6
<b>Unit V: File Handling in Python</b> Reading from and writing to files. Manipulating data read from files using NumPy and SciPy. Simple file-based operations: sorting, arithmetic, and saving results.	4

### Practical Sessions:

Practical examples and exercises based on the above units (approx. 12 problems)	30

### Sample Exercises

**Problem 1:** Write a step-by-step algorithm to calculate the sum of the first  $n$  numbers. Convert this algorithm into a simple Python program.

**Problem 2:** Write an algorithm to check if a given number is prime. Then convert this algorithm into a Python program that takes an integer as input and prints whether the number is prime or not.



**Problem 3:** Write a Python script that asks the user for their name and age and prints a message saying, "Hello, [Name]! You are [Age] years old."

**Problem 4:** Install Python and Visual Studio Code on your system. Write a program that takes three numbers as input and prints their average.

**Problem 5:** Write a Python function that takes a positive integer as input and returns its factorial. Test the function with the numbers 5 and 7.

**Problem 6:** Write a Python program that generates the first 10 numbers of the Fibonacci series. Modify the program to allow the user to input the number of terms of the series.

**Problem 7:** Create a list of 10 random numbers using Python. Use NumPy to calculate the mean, median, and standard deviation of these numbers.

**Problem 8:** Write a Python program that generates a list of 20 random integers between 0 and 100. Use NumPy to sort the list and then calculate the sum and product of the numbers in the sorted list.

**Problem 9:** Create a text file named 'numbers.txt' containing 10 random integers on each line. Write a Python program to read the numbers from the file and print them in reverse order.

**Problem 10:** Write a Python program that takes a list of 10 integers as input, writes this list to a file named 'output.txt', and then reads the file content and prints the numbers in reverse order.

**Problem 7:** Create a list of 10 random numbers using Python. Use NumPy to calculate the mean, median, and standard deviation of these numbers.

**Problem 8:** Write a Python program that generates a list of 20 random integers between 0 and 100. Use NumPy to sort the list and then calculate the sum and product of the numbers in the sorted list.

**Problem 9:** Create a text file named 'numbers.txt' containing 10 random integers on each line. Write a Python program to read the numbers from the file and print them in reverse order.

**Problem 10:** Write a Python program that takes a list of 10 integers as input, writes this list to a file named 'output.txt', and then reads the file content and prints the numbers in reverse order.

**Problem 11:** Write a Python program to plot the function  $f(x) = x^2$  for  $x$  values from -10 to 10 using Matplotlib. Include labels for the axes and a title for the plot.

**Problem 12:** Write a Python program that reads two columns of data from a file (representing  $x$  and  $y$  coordinates) and generates a scatter plot with custom styles, colours, and axis labels. Include a legend and grid in the plot.

### Suggested Readings:

1. "Introduction to Algorithms" by T. H. Cormen, C. E. Leiserson, R. L. Rivest, and M. M. Thomey
2. "Structure and Interpretation of Computer Programs" by H. Abelson and G. Jay McCarthy
3. "Python Crash Course" by Eric Matthes
4. "Python for Data Analysis" by Wes McKinney

**Serial No-48**  
**Translation Studies**  
**SEC0304803**  
**(By LOKD College)**

Skill Enhancement Course  
Translation Studies  
Credit: 3 (Marks: 75)

Distribution of Marks:

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: 25
  - Theory Credit : 02
  - Practical Credit: 01
  - No. of Required Classes: 30 Hours (Theory) + 30 Hours Practical
  - No. of Non-Contact Class: 00
  - Particulars of Course Designer: Department of Bodo, Lokanayak Omeo Kumar Das College, Dhekiajuli, Sonitpur, Assam

Learning objectives:

- Understand the basic concept of Translation.
- Understand the importance of Translation
- Understand the importance of Print Media
- Make the learners competent for vocational life through Translation

Unit -1: Introduction to translation studies, importance of translation, types of translation. 10 Marks

Unit-2: Introduction to Bodo print media, Role of Bodo print media in the development of Bodo language, literature and Culture – 10 Marks

Unit -3: Importance and social responsibility of Social media in Bodo – 10 Marks

Practical: Translation will be made from the chapter of any two Languages in to Bodo -25 Marks

- Theory Credit : 02
- Practical Credit: 01
- No. of Required Classes: 30 Hours (Theory) + 30 Hours Practical
- No. of Non-Contact Class: 00
- Particulars of Course Designer: Department of Bodo, Lokanayak Omeo Kumar Das College, Dhekiajuli, Sonitpur, Assam

Learning objectives:

- Understand the basic concept of Translation.
- Understand the importance of Translation
- Understand the importance of Print Media
- Make the learners competent for vocational life through Translation

Unit -1: Introduction to translation studies, importance of translation, types of translation. 10 Marks

Unit-2: Introduction to Bodo print media, Role of Bodo print media in the development of Bodo language, literature and Culture – 10 Marks

Unit -3: Importance and social responsibility of Social media in Bodo – 10 Marks

Practical: Translation will be made from the chapter of any two Languages in to Bodo -25 Marks

Suggested Readings:

1. Rao Swlainaini Khanthi, Ripen Boro, Siphung Publications, Thelamara, 2015
2. Translation Today, Udaynarayan Singh and P.P. Giridhar, C.I.I.L. Publication, 520, 2024
3. Tulonamulok Sahitya Aru Anubad Bisar, Niranjan Mahanta Bezborra, Granthobarta Publicatio, Guwahati, Assam,

**Serial No-48**

**Translation Studies**

**SEC0304803**

**(By Dept. of Bodo, GU)**

Course outcomes:

- Gather knowledge about theory, concept and types of translation
- Able to know about the problems and prospects of translation

Unit: I Theory, concept and types of Translation 20

Unit: II Translation of Advertisement from Print and Electronic Media into Bodo, Translation of News Item, Essay and Interview 20

Unit: III Review on Suitability and Acceptability of the translated book “Wings of Fire” of Dr. APJ Abdul Kalam in Bodo 20

Suggested readings:

Tulanamulak Sahitya Aru Anubad Bichar Niranjana Mahanta Bezbor  
Translation Today-Uday Narayan Sing & PP Giridhar  
Translation: Theory and Practice by Rekha Sharma  
A handbook of translation studies by Bijay Kumar Das

**Serial No-48**

**Translation Studies**

**SEC0304803**

**(By Lakhimpur College)**

**Skill Enhancement Course (SEC) Mushroom Cultivation Tr**

**Introduction to Translation Studies**

**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

**1. End Semester Examination: Total Marks:**

**2. Sessional Examination: Total Marks:**

**3. Practical: Total Marks:**

➤ **Theory Credit**

➤ **Practical Credit**

➤ **No. of Required Classes** 30 hours (Theory) + 30 hours (Practical) (If you take 2 credits for theory (3 credits), you will have 45 hours contact classes. For each credit there will be 15 hours contact classes while for 1 practical credit, there will be 30 hours contact classes.)

➤ **Particulars of Course Designer** Department of English, Lakhimpur College

**Graduate Attributes: Course Objectives**

**Credits:**

**Learning Outcome**

By the end of this course, students are expected to:

- Understand key concepts and theories in translation studies.
- Analyze the role of the translator in the transfer of meaning across languages and cultures.
- Apply translation techniques to a variety of text types.
- Understand the history and development of Translation Studies.
- Develop practical translation skills across different text types.
- Analyze the cultural and ethical issues in translation.
- Improve proficiency in both the source and target languages.



#### History of Translation

- The evolution of translation practices
- Major historical translators and their contributions
- Translation in different cultural contexts

#### **Unit 2 : Practical Translation**

- Translation of literary texts
- Techniques for translating prose and poetry
- Challenges in literary translation

#### **Practical Translation II**

- Translation of non-literary texts (e.g., legal, technical, medical)
- Strategies for specialized translations
- Translation tools and software

#### **Unit 3 : Audiovisual Translation**

- Subtitling and dubbing
- Translation for film and television
- Challenges in audiovisual translation

#### **Unit 4 Translation Technologies**

- Introduction to computer-assisted translation (CAT) tools
- The impact of machine translation on the profession

#### **Unit 5: Translation as a Profession**

- The role of professional translators
- Career opportunities in translation
- Certification and professional organizations

Practice of translation of different texts, poem, prose piece, subtitle writing

#### Final Project Preparation

- Guidelines for the final project
- Choosing a text for translation
- Workshop

#### Final Project Presentations

- Presentation of translated works
- Discussion and critique of translation choices
- Reflection on the translation process

#### Recommended Texts

- Munday, Jeremy. *\*Introducing Translation Studies: Theories and Applications\**. Routledge.
- Venuti, Lawrence (ed.). *\*The Translation Studies Reader\**. Routledge.
- Baker, Mona. *\*In Other Words: A Coursebook on Translation\**. Routledge.

## Serial No-56

# Microbial Quality Control in Food and Pharmaceuticals Industry

SEC0305603

(By Handique Girls College)

### SEMESTER – III

#### SKILL ENHANCEMENT COURSE (SEC)

#### Microbial Quality Control in Food and Pharmaceutical Industries

CREDITS: 3 (Marks=75)

##### Distribution of Marks:

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
  - No. of Non-Contact Classes 0
  - Particulars of Course Designer Department of Microbiology, Handique Girls' College

##### Learning objectives:

- ❖ Developing insights into the hierarchy of quality control in food and pharmaceutical industries.
- ❖ Enumerating the various sterility tests practiced in manufacture of food and medicines.
- ❖ Microbiological analysis of pathogenic microbes of importance in food and water.

##### Learning outcomes:

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

- ❖ Developing practical knowledge on microbiological quality testing.
- ❖ Technical expertise on isolation and characterization of contaminated microbes.
- ❖ Developing practical insights for good laboratory practice.

Find text or tools

- ❖ Enumerating the various sterility tests practiced in manufacture of food and medicines.
- ❖ Microbiological analysis of pathogenic microbes of importance in food and water.

##### Learning outcomes:

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

- ❖ Developing practical knowledge on microbiological quality testing.
- ❖ Technical expertise on isolation and characterization of contaminated microbes.
- ❖ Developing practical insights for good laboratory practice.

##### THEORY

Unit 1: Microbiological Laboratory and Safe Practices	Hours 7	Marks
Good laboratory practices - Good laboratory practices, Good microbiological practices Biosafety cabinets, autoclave		11

To  
P. Das  
19/8/14  
Handique Girls College  
1001

Unit 2: Determining Microbes in Food / Pharmaceutical Samples	<b>Hours 8</b>	<b>Marks</b>
Culture and microscopic methods - Standard plate count, Most probable numbers, Direct microscopic counts		<b>14</b>
Unit 3 Pathogenic Microorganisms of Importance in Food & Water	<b>Hours 15</b>	<b>Marks</b>
Enrichment culture technique, Detection of specific microorganisms - on XLD agar, Salmonella Shigella Agar, Manitol salt agar, EMB agar, McConkey Agar, Saboraud Agar Ascertaining microbial quality of milk by MBRT, Rapid detection methods of microbiological quality of milk at milk collection centres (COB, 10 min Resazurin assay)		<b>25</b>

**PRACTICAL:**

Analysis of milk samples by MBRT test.	<b>Hours</b>	<b>Marks</b>
Study of colony characteristics of food pathogens on differential and selective media.	<b>30</b>	<b>25</b>
Study of food pathogens by direct microscopic examination/microphotograph		

**SUGGESTED READING:**

1. Harrigan WF (1998) Laboratory Methods in Food Microbiology, 3rd ed. Academic Press

**PRACTICAL:**

Analysis of milk samples by MBRT test.	<b>Hours</b>	<b>Marks</b>
Study of colony characteristics of food pathogens on differential and selective media.	<b>30</b>	<b>25</b>
Study of food pathogens by direct microscopic examination/microphotograph		

**SUGGESTED READING:**

1. Harrigan WF (1998) Laboratory Methods in Food Microbiology, 3rd ed. Academic Press
2. Garg N, Garg KL and Mukerji KG (2010) Laboratory Manual of Food Microbiology I K International Publishing House Pvt. Ltd.
3. Jay JM, Loessner MJ, Golden DA (2005) Modern Food Microbiology, 7th edition. Springer
4. Baird RM, Hodges NA and Denyer SP (2005) Handbook of Microbiological Quality control in

-----

*Rajma*  
Principal-Cum-Secretary  
Handique Girls' College  
Guwahati- 781001

**Serial No-57**  
**Agri-Resource Management**  
**SEC0305703**  
**(By Dimoria College)**

**Theory Credit: 2      Classes: 30 Hours**

**Practical Credit: 1      Classes: 30 Hours**

**Learning Objectives:**

- (i) The course is designed to aware the students about the crucial link that exist between Agriculture and Environment
- (ii) To Help students gain skills on management of inputs for sustainable agriculture.
- (iii) To build the capacity of the students and to enhance their practical knowledge on agriculture and give them in-field training through field visits and practical.

**Learning Outcomes:**

- (i) The students will learn how to manage scarce natural resources in agriculture or farming in sustainable ways.
- (ii) They would know about the possibilities and potentialities of self employability in farming, horticulture, Eco-tourism etc.

<b>Theory</b>		
<b>Unit 1-</b> Agriculture and environment, Agro-ecosystem, Organic farming, Natural farming, Sustainable agriculture, Rainfall pattern, Soil and water conservation, Rain water harvesting, water resources and management, Terracing in slope land, In situ water conservation, Conservation agriculture.	<b>15 Hours</b>	<b>Credit- 01 Marks- 25</b>
<b>Unit 2-</b> Crop nutrition – major, macro and micronutrients, Manures& fertilizers- Organic and inorganic fertilizers, FYM, Vermicompost, compost,	<b>15 Hours</b>	<b>Credit- 01</b>

green manure, Bio-fertilisers, Bio-pesticides, Integrated Nutrient Management (INM), Integrated Weed Management (IWM), Integrated Pest Management (IPM), Methods of nutrient application.		<b>Marks- 25</b>
---	--	------------------

<b>Practical</b>		
<b>Unit 3</b> Practical - Agri/Horti/ Eco –tourism, Field visit.	<b>30 Hours</b>	<b>Credit-01 25 Marks</b>

### Reference books

- Hudson T. Hartmann, Dale E. Kester, Fred T. Davies, Jr. and Robert L. Geneve. Plant Propagation- Principles and Practices (7th Edition). PHI Learning Private Limited, New Delhi-110001
- T.K.Bose, S.K.Mitra, M.K.Sadhu, P. Das and D.Sanyal. Propagation of Tropical & Subtropical Horticultural Crops, Volume 1(3rd Revised edition). Naya Udyog, 206, Bidhan Sarani, Kolkata 700006.
- Sadhu,M.K.1996. Plant Propagation. New age International Publishers, New Delhi.
- Mukherjee,S.K. and Majumdar,P.K.1973.Propagation of fruit crops. ICAR, New Delhi.

**Skill Enhancement Course (SEC)**

***Agri-Resource Management***

***Semester -III***

Designed by

**Department of Economics, Dimoria College, Khetri**

Syllabus Committee

Advisers:

1. Dr. Hemen Ch. Bhattacharjee, Dean, Daffodil College of Horticulture, Khetri, Assam
2. Mr. Manabjyoti Barkakaty, Principal I/C, Dimoria College, Khetri, Assam

Chairperson:

1. Dr. Hem Chandra Deka, Associate Professor (Retired), PG department of Economics, Dimoria College, Khetri.

Coordinator:

1. Dr. Minakshi Bayan Borah, HoD, PG Department of Economics, Dimoria College, Khetri.

Members:

1. Mr. Kapil Rahang, Assistant professor, PG department of Economics, DCK
2. Mr. Sahadev Mili, Assistant professor, PG department of Economics, DCK
3. Dr. Bipul Kumar Das, Assistant professor, PG department of Economics, DCK
4. Dr. Lakhimi Nath, Assistant professor, PG department of Economics, DCK
5. Ms. Masuma Ahmed, Assistant professor, PG department of Economics, DCK
6. Dr. Jahidul Haque, Assistant professor, PG department of Economics, DCK



## Serial No-58

### Aquarium construction and ornamental fish keeping

SEC0305803

(By Dhing College)

#### DEPARTMENT OF ZOOLOGY DHING COLLEGE

Syllabus for 3<sup>rd</sup> Sem (FYUGP) Skill Enhancement Course (SEC)  
Sub: Zoology  
Course Title: Aquarium Construction and Ornamental Fish Keeping  
Credits: 3 (Theory-2+Practical- 1)  
Total Marks: 75 (Theory: 50+ Practical: 25)  
Prepared by Department of Zoology, Dhing College

#### Learning Objectives:-

Creating a syllabus for a course on Aquarium Construction and Ornamental Fish Keeping involves outlining the key topics and skills students need to master.

Acquire knowledge on various types of ornamental fish of North-East region.

Understanding various aquarium plant diversity in the wet land of Assam.

Understand the importance of preservation and conservation of indigenous ornamental fish.

#### Learning Outcomes:-

Understand the fundamental principles of aquarium construction.

Develop skills in setting up and maintaining different types of aquariums.

Gain knowledge about various ornamental fish species and their care requirements.

Learn to manage water quality and ensure a healthy environment for fish.

Explore the basics of breeding and the ethical considerations of ornamental fish keeping.

#### Unit-I:-

- **Ornamental fish diversity of North East India:** Ornamental Fish Resources of NE India and their Conservation Status; ornamental fishes of NE India; Conservation and management of ornamental fishes.

#### Unit – II:-

- **Construction and management of Home Aquarium:** Types, Major components of Aquarium,

#### Unit – II:-

- **Construction and management of Home Aquarium:** Types, Major components of Aquarium, Procedure for construction of an aquarium, Precautions, Ideal Size of a home Aquarium, Management of Aquarium, Pure culture of Planktons.

#### Unit – III:-

- **Natural Feed of Ornamental Fish:** Food habits of ornamental fish, management of natural colour of fishes, Feed formulation of ornamental fish.

#### Unit – IV:-

- **Breeding of ornamental Fish:** Natural breeding of ornamental fish, health management of ornamental fish.

#### Unit – V:-

- **Development of Biological filtration in Aquarium:** Mechanical Filtration, Biological Filtration, Chemical Filtration, development of biological filter.

#### PRACTICAL: (credit – 1)

1. Project report on a visit to ornamental fish breeding centre.
2. Study of Aquarium plant.
3. Development of Biological Filtration in Aquarium.

#### Suggested Readings:

1. K.V. Jayashree, C.S. Tharadevi, N. Arumugam, Ornamental Fish Farming and Management, Saras Publication.
  2. Janmoni Borah, Dr. S. Chakravarty, Ornamental Fish and Fisheries, Ashok Publication.
  3. Manisha Das, Alongkarik Mas Aru Minkshetra, Ashok Book stall.
- \*\*\*\*\*



## **Serial No-58**

### **Aquarium construction and ornamental fish keeping**

**SEC0305803**

**(By B. Borooah College)**

Distribution of Marks:

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required Classes 30 hours (Theory) + 30 hours (Practical)

#### **Learning Objectives**

This course is intended to obtain-

1. knowledge about the ornamental fish diversity of Northeast India
2. the technique of construction and installation of home aquarium
3. an understanding of feeding and routine monitoring of aquarium fishes
4. knowledge about commonly occurring diseases of aquarium fishes and their management methods
5. the concept of biofilters and their use in aquarium

#### **Learning Outcomes**

Students will learn about-

1. ornamental fishes found in Northeast India
2. construction and installation techniques of home aquarium
3. commonly occurring fish diseases, their prevention and treatment
4. biofilters used in aquariums

#### **Theory**

**Credits-2**

**Unit-1: Introduction to Ornamental fish** -Definition and Characteristics of ornamental fish, ornamental fishes of North East India and important exotic species 4h

**Unit-2: Construction and management of home aquarium**-Materials required for

aquarium construction, selection of place for keeping aquarium, accessories required for installation of aquarium 6h

**Unit-3: Selection and Introduction of fish in aquarium-** Species compatibility, acclimatization and treatment. 4h

**Unit 4: Feeding and routine monitoring-** Natural and commercially available feeds. Replacement of aquarium water and monitoring of water quality 6h

**Unit 5: Health management-** Common diseases of ornamental fishes (caused by bacteria, fungi, protozoa and parasites), prevention and treatment 5h

**Unit 6: Aquarium plants and biofilters-** Plants used in aquarium, types, utility and development of biofilters 5h

### **Practicals**

### **Credit-1**

1. Identification of important ornamental fishes of Assam 4h
2. Construction and installation of aquarium 6h
3. Estimation of dissolved oxygen, free carbon dioxide, pH, alkalinity, hardness and chloride 8h
4. Identification of plankton used as fish feed 6h
5. Identification of plants used in aquarium 6h

### **Suggested reading:**

1. S.P. Biswas - Ornamental fishes of Northeast India
2. Matthew Clarke and Ian West - The Complete Aquarium Guide
3. C.W. Emmens - Keeping and breeding of Aquarium fishes
4. Hellen E Roberts - Fundamentals of Ornamental fish health

## Serial No-59

नेपालीसाहित्यिकपत्रकारिता

SEC0305903

(By LOKD College)

**Gauhati University**  
FYUGP- Degree : SEC-Nepali Syllabus  
नेपाली साहित्यिक पत्रकारिता  
Semester-3  
Total marks -75 (Theory-30, Practical-25, Internal-20)  
Credit: 3

अङ्क/पाठ्यक्रम विभाजन:  
क) ध्यान्मासिक परिक्षा: 30  
ख) आभ्यन्तरीण परिक्षा :20  
ग) क्षेत्र अध्ययन: 25

-पाठ्यक्रम अध्ययन -02 Credit  
- क्षेत्र अध्ययन - 01 Credit

पाठ्यक्रम शिक्षणको उद्देश्य(Learning Objective):  
यस पाठ्यक्रमद्वारा विद्यार्थीवर्गलाई असम तथा भारतका पत्र - पत्रिकाहरूको जानकारी गराउनुका साथै समाज निर्माणमा पत्रकारहरूको भूमिकाबारे जानकारी गराउनु हो।

शिक्षाज्ञान (Learning Outcome):  
- यस पाठ्यक्रमद्वारा विद्यार्थीवर्गले असमका विभिन्न ठाउँबाट प्रकाशित हुने पत्रपत्रिकाबारे जानकारी पाउनेछन्।  
- पत्रकार र पत्रिका लेखन सम्बन्धमा अभिज्ञता प्राप्त गर्नेछन्।  
- यस अध्ययनबाट विद्यार्थीवर्गले सामाजिक क्षेत्रमा पत्रिकाको भूमिकाबारे ज्ञान प्राप्त गर्न सक्नेछन्।।  
- पत्रकारितामाथि कार्यशाला गरेर विद्यार्थीवर्गले भविष्यमा पत्रकारिता सम्बन्धी व्यवहारिक ज्ञान पाउन सक्नेछन्।

	समाजमा पत्रकारको भूमिका		
2	नेपाली साहित्यको विकासमा पत्रकार र पत्रिकाको योगदान	7	10
3	केही प्रमुख पत्रपत्रिकाको परिचय: गोरखापत्र, गोर्खे खबर कागत, गोरखा सेवक, खोजी, बिन्दु, हाम्रोध्वनि, देशवार्ता, स्पन्दन, हाम्रो प्रजाशक्ति	12	15
4	व्यवहारिक पत्र: १. पत्रकारिता माथि कार्यशाला	15	25

### सन्दर्भ-ग्रन्थ

- १.- नेपाली साहित्यको इतिहास - चूडामणि बन्धु
२. नेपालमा पत्रपत्रिका र छापाखानाको इतिहास - ग्रीष्म देवकोटा
३. भारतैली नेपाली पत्रपत्रिकाको शताब्दी 1887-1986 - हिरा क्षेत्री
४. गोरखासेवक सङ्कलन - सम्पादन- डा० खेमराज नेपाल
५. उमाटुमनि - स्मारिका - असम नेपाली साहित्य सभा, गोलिया-2021
६. गङ्गाल सम्मेलन दर्पण - स्मृति ग्रन्थ - असम गोर्खा सम्मेलन -2023।

## Serial No-59

नेपालीसाहित्यिकपत्रकारिता

SEC0305903

(By Chaiduar College)

Distribution of Marks:

1. End Semester Examination:	Total Marks : 30
2. Sessional Examination:	Total Marks : 20
3. Practical:	Total Marks : 25
Theory Credit	02
Practical Credit	01
No. of Required Classes	30 hours (Theory)+ 30 hours (Practical)
No. of Non-Contact Classes	00
Particulars of Course Designer	Department of Nepali, Chaiduar College, Gohpur

पाठ्यक्रम शिक्षणको उद्देश्य (Learning Objective):

यस पाठ्यक्रमद्वारा विद्यार्थीवर्गलाई असम तथा भारतका पत्र – पत्रिकाहरूको जानकारी गराउनुका साथै समाज निर्माणमा पत्रकारहरूको भूमिकाबारे जानकारी गराउनु हो।

शिक्षाज्ञान (Learning Outcome):

- यस पाठ्यक्रमद्वारा विद्यार्थीवर्गले असमका विभिन्न ठाउँबाट प्रकाशित हुने पत्रपत्रिकाबारे जानकारी पाउनेछन्।
- पत्रकार र पत्रिका लेखन सम्बन्धमा अभिज्ञता प्राप्त गर्नेछन्।
- यस अध्ययनबाट विद्यार्थीवर्गले सामाजिक क्षेत्रमा पत्रिकाको भूमिकाबारे ज्ञान प्राप्त गर्न सक्नेछन्।
- पत्रकारितामाथि कार्यशाला गरेर विद्यार्थीवर्गलेभविष्यमा पत्रकारिता सम्बन्धी व्यवहारिक ज्ञान पाउन सक्नेछन्।

Unit	CONTENT	Hrs.	Marks.
1	साहित्यिक पत्रकारिता: अर्थ, उद्देश्य र प्रवृत्ति समाजमा पत्रकारको भूमिका	9	10
2	नेपाली साहित्यको विकासमा पत्रकार र पत्रिकाको योगदान	9	10
3	केही प्रमुख पत्रपत्रिकाको परिचय: गोरखापत्र, गोर्खे खबर कागत, गोरखा सेवक, खोजी, बिन्दु, हाम्रोध्वनि, देशवार्ता, स्पन्दन, हाम्रो प्रजाशक्ति	12	10
4	व्यवहारिक पत्र: १. पत्रकारिता माथि कार्यशाला	15	25

सन्दर्भ-ग्रन्थ

- १.- नेपाली साहित्यको इतिहास - चूडामणि बन्धु
२. नेपालमा पत्रपत्रिका र छापाखानाको इतिहास-ग्रीष्म देवकोटा
३. भारतेली नेपालीपत्रपत्रिकाको शताब्दी 1887-1986 - हिरा क्षेत्री

४. गोरखासेवक सङ्कलन- सम्पादन- डा० खेमराज नेपाल
५. उमाटुमनि - स्मारिका - असम नेपाली साहित्य सभा , गोलिया-2021
६. गङ्गपाल सम्मेलन दर्पण - स्मृति ग्रन्थ - असम गोर्खा सम्मेलन -2023 ।

Serial No-59

नेपालीसाहित्यिकपत्रकारिता

SEC0305903

(By THB College)

Total marks -75(Theory-30, Practical-25, Internal-20)

Credit: 3

अङ्क/पाठ्यक्रम विभाजन:

क) प्यान्माषिक परिक्षा: 30

ख) आभ्यन्तरीण परिक्षा :20

ख) क्षेत्र अध्ययन: 25

-पाठ्यक्रम अध्ययन -02 Credit

- क्षेत्र अध्ययन - 01Credit

पाठ्यक्रम शिक्षणको उद्देश्य(Learning Objective):

यस पाठ्यक्रमद्वारा विद्यार्थीहरूलाई असमता समाप्त गर्न र समाज निर्माणमा पत्रकारहरूको भूमिकाबारे जानकारी गराउनुका साथै समाज निर्माणमा पत्रकारहरूको भूमिकाबारे जानकारी गराउनु हो।

शिक्षाज्ञान (Learning Outcome):

- यस पाठ्यक्रमद्वारा विद्यार्थीवर्गले असमता विभिन्न ठाउँबाट प्रकाशित हुने पत्रपत्रिकाबारे जानकारी पाउनेछन्।
- पत्रकार र पत्रकारिता सम्बन्धमा अभिज्ञता प्राप्त गर्नेछन्।
- यसबाट विद्यार्थीवर्गले सामाजिक क्षेत्रमा पत्रिकाको भूमिकाबारे जानकारी पाउनेछन्।
- पत्रकारितामाथि कार्यशाला गरेर विद्यार्थीवर्गले भविष्यमा पत्रकारिता सम्बन्धी व्यावहारिक ज्ञान पाउन सक्नेछन् ।

Unit	CONTENT	Hrs.	Marks.
1	नेपाली साहित्यिक पत्रकारिता: अर्थ, उद्देश्य र	9	10

	प्रवृत्ति समाजमा पत्रकारको भूमिका			
2	नेपाली साहित्यको विकासमा पत्रकार र पत्रिकाको योगदान	7	10	
3	□□□□ □□□□□□ □□□□□□□□□□□□□□ □□□□□□: □□□□□□□□□□, □□□□□□ खबर □□□□, □□□□□ □□□□, □□□□, □□□□□□, □□□□□□□□□□□□□□, □□□□□□□□□□□□, □□□□□□□□, □□□□□□□ □□□□□□□□□□□□	12	15	
4	व्यवहारिक पत्र: १. पत्रकारिता माथि कार्यशाला	15	25	

### सन्दर्भ-ग्रन्थ

- १.- नेपाली साहित्यको इतिहास - चूडामणि बन्धु
२. □□□□□□□□ □□□□पत्रिका र छापाखानाको इतिहास-ग्रीष्म देवकोटा
३. भारतेली नेपालीपत्रपत्रिकाको शताब्दी 1887-1986 - हिरा क्षेत्री
४. गोरखासेवक सङ्कलन- सम्पादन- डा० खेमराज नेपाल
५. उमाटुमनि - स्मारिका - असम नेपाली साहित्य सभा , गोलिया-2021
६. गङ्गपाल सम्मेलन दर्पण - स्मृति ग्रन्थ - असम गोर्खा सम्मेलन -2023 ।

Department of Nepali, THB College, Jamugurihat.

## Serial No-60

### Introduction to Biofertilizers

SEC0306003

(By Nalbari College)

**Course Description:** This course provides an introduction to biofertilizers, focusing on their types, production, application, and role in sustainable agriculture. Students will learn about the biology and ecology of biofertilizer microorganisms, the benefits of biofertilizers over chemical fertilizers, and their impact on soil health and crop productivity..

#### Course Objectives:

1. Understand the concept and importance of biofertilizers.
2. Identify different types of biofertilizers and their roles.
3. Learn the methods of production and quality control of biofertilizers.
4. Explore the application techniques and benefits of using biofertilizers in agriculture.
5. Analyze the environmental impact and sustainability aspects of biofertilizer use.

**Duration of Course** : 60 hours (3 credits)

**Course Structure** : Paper I – Theory  
Paper II – Practical

**Skeleton of the course** :

Sl No.	Paper	Teaching hours	Maximum marks allotted	Passing mark
1.	Paper I	30	30	
2.	Paper II	30	25	

End semester examination total marks : 75 (30+25)

Sessional Examination total marks:20

Head

Principal



Unit no	Unit content	No of classes((Paper I-theory)
Unit 1	<b>Introduction to Biofertilizers</b> <ul style="list-style-type: none"><li>• Definition and significance</li><li>• Historical development of biofertilizers</li><li>• Differences between biofertilizers and chemical fertilizers</li></ul>	5
Unit 2	<b>Types of Biofertilizers</b> <ul style="list-style-type: none"><li>• Nitrogen-fixing biofertilizers (e.g., Rhizobium, Azospirillum)</li><li>• Phosphate-solubilizing biofertilizers (e.g., Pseudomonas, Bacillus)</li><li>• Potassium-mobilizing biofertilizers</li><li>• Mycorrhizal biofertilizers</li></ul>	5

Unit 3	<b>Production of Biofertilizers</b> <ul style="list-style-type: none"> <li>• Isolation and selection of efficient strains</li> <li>• Laboratory cultivation techniques</li> <li>• Carrier materials and formulation</li> <li>• Quality control and standards</li> </ul>	5
Unit 4	<b>Benefits of Biofertilizers</b> <ul style="list-style-type: none"> <li>• Impact on soil health and fertility</li> <li>• Role in improving crop yields</li> <li>• Environmental and economic benefits</li> </ul>	5
Unit 5	<ul style="list-style-type: none"> <li>• Organic farming – Green manuring and organic fertilizers</li> <li>• biocompost making methods, types and method of vermicomposting – field Application.</li> </ul>	10

Paper II: Practical:

1. Demonstration of the procedure of vermicomposting
2. Preparation of media.
3. Pure culture Techniques.

**Serial No-61**  
**Computer Programming and Circuit Designing**  
**SEC0306103**  
**(By Nalbari College)**

**Distribution of Marks:**

1. End semester Examination: Total Marks:	30
2. Internal/Sessional: Total Marks	20
3. Practical: Total Marks:	25
▪ Theory Credit	02
▪ Practical Credit	01
▪ No. of Required Classes	30 hrs. (Theory) + 30 hrs. (Practical)
▪ Particulars of Course Designer	Department of Physics, Nalbari College, Nalbari

❖ **Learning Objective:**

- Understand the basic components of a computer.
- Learn the basics of computer programme designing.
- Hands on practice of computer programme writing and execution.
- Computer aided circuit designing (as e.g. Series and parallel circuit, high pass and low pass filter etc.)

❖ **Learning Outcomes:**

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

- Distinguish between different parts of the computer.
- Compile computer programme to find the solution of Scientific problem.
- Identify and use the different components in electronics/electrical circuit designing.
- Problem specific circuit designing.

**THEORY:**

Units	Time (hrs.)	Marks
<b>Unit I. Basics of Computer</b> Computer Hardware and Software, Components of Computer System, Central Processing Unit, Concept of Hardware: Input Devices, Output Devices, Computer Memory, Operating System.	<b>04</b>	<b>03</b>
<b>Unit II. Basics of Scientific Programming</b> Algorithm and Flowchart, Control Structures: Sequence, Branching	<b>07</b>	<b>09</b>

(Selection), Loop (Repetition), Examples.		
<b>Unit III. Introduction to Language C/C++/Fortran etc.</b> Introduction to any one of High-Level Language, Concepts of Compiler, Structure of Computer Programme, Variable and Operators, I/O functions, Control Statements, Loop Control, Arrays.	<b>08</b>	<b>06</b>
<b>Unit IV. Circuits and Devices</b> Series and parallel LCR circuits. Block Diagram of a Power Supply. Qualitative idea of C and L Filters. Active and Passive Filters. Low Pass, High Pass, Band Pass and Band Reject Filters. Operational Amplifier. Integrated Circuit. IC-555 timer (qualitative idea only).	<b>08</b>	<b>09</b>
<b>Unit V. Introduction to Circuit Designing Software (SPICE/Multisim etc.)</b> Overview of the software and its significance in circuit simulation. Different types of analyses supported by the software (AC, DC, Transient etc.). Time-domain and frequency-domain response of circuits.	<b>03</b>	<b>03</b>

### PRACTICAL:

The students are required to perform at least four experiments from the following lists of experiment.

<b>Aim</b>	<b>Time</b>	<b>Marks</b>
Computer Programme using any of high-level language such as C/C++/Fortran etc. <ol style="list-style-type: none"> <li>Sum and Average of list of numbers.</li> <li>Factorial of a given number.</li> <li>Largest/Smallest of given list of numbers and its Location.</li> <li>Sorting of numbers in ascending/descending order.</li> <li>To print out natural even/odd numbers between given limits.</li> <li>To find roots of quadratic equation.</li> <li>To find a set of prime numbers and Fibonacci series.</li> </ol>		
SPICE/Multisim simulations for electrical networks and electronic circuits <ol style="list-style-type: none"> <li>Design and analyze the series and parallel LCR circuits.</li> <li>Design the inverting and non-inverting amplifier using an Op-Amp of given gain.</li> <li>Design the 1<sup>st</sup> order active low pass and high pass filters of given cutoff frequency.</li> <li>Design a power supply using bridge rectifier and study the effect of C-filter.</li> <li>Design a NOT gate using transistor.</li> <li>Design a stable/monostable multivibrator of given specifications using</li> </ol>	30 hrs.	25

555 Timer.		
------------	--	--

**Suggested Books:**

1. *Programming with C* – T Jeyapoovan, Vikas Publishing
2. *Numerical Methods* – E Balagurusamy, Mc Graw Hill Education.
3. *Electronic devices and circuit theory* – Robert L. Boylestad.
4. *Circuit simulation with SPICE OPUS: Theory and practice* – Author-Tadej Tuma and Arpad Buermen. (Springer Science & Business Media, 2009)
5. *Electronic devices and circuits* – Jimmie J Cathey and William Travis Smith. (McGraw-Hill, 2006)

**Serial No-63**  
**Chemistry in Forensic Science**  
**SEC0306303**  
**(By Nalbari College)**

**Distribution of Marks:**

1. End Semester Examination:	Total Marks:	30
2. Sessional Examination:	Total Marks:	20
3. Practical:	Total Marks:	25

➤ Theory Credit	02
➤ Practical Credit	01
➤ No. of Required Classes:	30 hours (Theory)+ 30 hours (Practical)
➤ Particulars of Course Designer:	Department of Chemistry, Nalbari College Department of Chemistry, Pragjyotish College

**Course Objectives:**

- To provide a basic understanding of Forensic Science
- To comprehend the role of Chemistry in Forensic Science

**Learning outcome:**

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

- Know the history and development of Forensic Science as well as recent advances in the field within the context of India.
- Acquaint with the recent scope of Forensic Chemistry.
- Learn about various explosive materials, drugs and narcotics as well as chemical poisons involved in various criminal activities

**Theory: 02 Credit (30 contact hours)**

## Unit I: Introduction to Forensic Science

Marks: 10 (10 Hrs)

### a. History and Development of Forensic Science

Historical aspects of Forensic Science, Definitions and concepts of Forensic Science. History of Forensic Chemistry and its progress.

### b. Scope of Forensic Science

Recent advances and scope of forensic science, Role of Chemistry in Forensic Science, Basic principles and branches of forensic science, Collection and preservations of forensic samples, Analysis and reporting of forensic cases, Qualifications of forensic scientists.

## Unit II: Forensic Chemistry

Marks: 20 (20 Hrs)

### a. Chemistry of Explosion & Petroleum products

History of Dynamite, Introduction to nitrogenous compounds in explosive chemistry, shock wave, Classification of explosives, Blasting agents. Examples of some explosives and their structure & characteristics, TNT, PETN RDX, tetrazine, DDNP, picric acid, HMX, NG, dynamite, ammonium nitrate, black powder, smokeless powder etc. Extraction of Explosive material and examination. Explosion process. Blast waves. Bomb scene management. Post blast residue collection and analysis.

Introduction to Petroleum Products, Adulteration of petroleum products, Analysis of common petroleum products, Analysis of Dyes used in petroleum products.

### b. Drugs of Forensic Importance

Definitions of Drugs, Narcotic drugs, and psychotropic substances. Broad classification – Narcotics, stimulants, depressants and hallucinogens. General characteristics and common example of each classification. Natural, synthetic and semi-synthetic narcotics, drugs and psychotropic substances

### c. Toxicology

Classification of poisons, Physico-chemical characteristics and mode of action of poisons, Accidental, suicidal and homicidal poisonings, Animal and plant-based poisons, Animal poisons: Snake venom. Mode of action. Carbon monoxide poisoning. Vegetable poisons. Poisonous seeds, fruits, roots and mushrooms. Denatured alcohols and its poisoning effects, Metabolism and excretion of poisons, Brief chemical tests and instrumental techniques used in the analysis of toxicological cases.

### d. Arson Cases & Trap case

Chemistry of Fire, Accelerants & types of accelerants, Combustible and Flammable liquids and its characteristics, Fire extinguisher, Arson: Legal Definition, Fire signatures and patterns, Determination of origin and cause, Extraction and identification of the accelerants. Chemistry and Forensic examination of Phenolphthalein used in trap cases.

## **Practical Credit: 01**

(Students should perform **any two** experiments and **one** case study report on forensic chemistry)

### **Laboratory Experiments**

1. Extraction of acidic and basic drugs from a mixture.
2. Separation of acidic drug using TLC.
3. Quantitative estimation of ethyl alcohol.
4. Extraction and detection of Phenolphthalein from aqueous hand wash solution.
5. Identification and separation of organic poisons using TLC.

### **Case Study**

1. Prepare a case study on bomb scene management.
2. Visit to a forensic laboratory and prepare a report.

### **Suggested Readings:**

1. Forensic Science, e-PG Pathshala, INFLIBNET Centre
2. Forensic Chemistry Handbook, edited by Lawrence Kobilinsky, John Wiley & Sons, Inc., Publication
3. Forensic Chemistry by [Nikunj N Dave](#)
4. Textbook Of Forensic Chemistry by Iqbal S. A.
5. Forensic Chemistry by [K. Mathew](#)



**Serial No-64**

**Applied Ethics**

**SEC0306403**

**(By Pragjyotish College)**

**Content**

**Course Objectives:**

- To provide an understanding on the idea of Applied Ethics
- To provide a basic knowledge on various branches of Applied Ethics
- To create an awareness on the importance of Environmental Ethics among the students
- To provide foundational knowledge about Professional Ethics

**Learning outcome:**

This course will enable the students to aware about the nature of Applied Ethics as well as its various branches. Moreover, this will help the students to get a proper understanding of the basic concepts of Environmental Ethics and Professional Ethics.

**Unit 1: Applied Ethics**

Meaning, Nature and Scope of Applied Ethics

**Unit 2: Environmental Ethics**

Nature of Environmental Ethics, Environmental Issues and importance of Environmental Ethics.

**Unit 3: Professional Ethics**

Meaning of Professional Ethics and basic characteristics of a professional

Project/ Assignment

**Books Recommended:**

Basak. Anindita, *Environmental Studies*, Pearson, 2009

Raju. Parlapalli, Anand. Konkala, Palve. Anil. E & Kumar. Ashok, *Environmental Principles and Ethics*, AG Publishing House, 2022

Holmes. R.L, *Introduction to Applied Ethics*, Bloomsbury Publishing, 2018

Singer. Peter, *Practical Ethics*, Cambridge University Press, 2011

Paper offered by:

Department of Philosophy

Pragjyotish College, Guwahati-781009

## **Serial No-66**

### **Role of NCC in Shaping Students' Career**

**SEC0306603**

**(By Raha College)**

#### **Learning Objectives**

- Provide knowledge about the history of NCC, its organization, and incentives of NCC for their career prospects.
- Inculcate spirit of duty and conduct in NCC Cadets.
- Provide understanding about different NCC Camps and their Conducts.
- Provide understanding about the concept of national integration and its importance.
- Provide understanding about the concept of self- awareness and emotional intelligence.
- Provide understanding about the concept and importance of social service.
- Provide understanding about the process of decision-making and problem solving.

#### **Learning Outcomes**

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

- NCC helps for personal development, i.e. character building, leadership skills, adventure, physical fitness and time management etc.
- NCC helps in academic and careers such as defense related careers.
- NCC helps in social and civic engagement e.g. promotes unity and discipline, instills a change of responsibilities towards society, and equips cadets with skills to handle emergencies.
- NCC helps in acquiring specific skills such as drill and ceremonial, Weapon Training, Map reading, First Aid etc.

#### **Course Content**

##### **Unit-1: Introduction to NCC**

- Brief history of NCC
- Aims, Objectives and Organization of NCC
- Training in NCC
- Incentives to Cadets

##### **Unit-2: National Integration**

- Concept of National Integration
- Importance of National Integration
- The significance of National Integration in fostering unity amidst diversity
- Challenges of National Integration

##### **Unit-3: Personality Development and Leadership**

- Introduction to Personality Development
- Factors influencing personality:

- a) Physical
- b) Social
- c) Psychological
- d) Philosophical

#### **Unit -4: Adventure Training**

- Concept and importance of Adventure Training for NCC
- Para Sailing
- Slithering
- Rock Climbing
- Cycling and Trekking

#### **Practical**

##### **A. Practical Components**

- Drill
- Fire Fighting
- Rescue Training
- Traffic control Training

##### **B. Assignment**

#### **Social Service and Community Development (SSCD) Activities**

#### **Suggested Readings**

- DGNCC Cadets Hand Book Common Subjects to All Wings in English
- DGNCC News Letter published Yearly wise
- R Gupta's Hand Book of National Cadet Corps
- Website: [ncc.ac.in](http://ncc.ac.in)

#### **Prepared By**

**Balo Ram Nath, Assistant Professor, Department of Political Science  
&  
Lieutenant, Associate NCC Officer, Raha College**

#### **And**

**Dr. Dilip Kumar Sonowal, Associate Professor, Department of Political Science  
&  
Lieutenant, Associate NCC Officer, Kaliabor College**

**Serial No-67**

**Yoga and Health**

**SEC0306703**

**(By LGB Girls College)**

**DISTRIBUTION OF MARKS:**

1. EndSemesterExamination:	TotalMarks:	30	
2.	SessionalExamination:	20	TotalMarks:
3.	Practical:		TotalMarks: 25
➤ TheoryCredit	02		
➤ PracticalCredit	01		
➤ No. of Required Classes	30 hours (Theory) + 30 hours (Practical)		
➤ No.ofNon-ContactClasses	00		
➤ <b>ParticularsofCourseDesigner: LGB Girls' College, Tezpur</b>			

**LEARNING OBJECTIVES:**

- Understand the principles and philosophy of yoga
- Learn various yoga techniques for physical, mental, and emotional well-being
- Apply yoga practices for health promotion and disease prevention
- Develop critical thinking and research skills in yoga and health

**LEARNING OUTCOMES:**

The potential learning outcomes for the undergraduate course on Yoga and Health:

1. Understand the fundamental principles and concepts of yoga, including its history, philosophy, and physiology.
2. Identify the physical, mental, and emotional benefits of yoga practice for overall health and well-being.

3. Demonstrate proficiency in various yoga techniques, including postures (*asanas*), breathing practices (*pranayama*), and meditation.
4. Analyze the scientific evidence supporting the use of yoga for stress management, anxiety, depression, and chronic diseases.
5. Apply yoga principles to promote healthy lifestyle choices, including nutrition, sleep, and relaxation.
6. Design and lead a yoga class or workshop, incorporating modifications and adaptations for diverse populations.
7. Develop a personal yoga practice, incorporating self-reflection, self-care, and mindfulness.
8. Apply research skills to investigate the effects of yoga on physical and mental health outcomes.

## **THEORY**

<b>Unit1:Introduction to Yoga</b> - Definition and history of yoga - Principles and philosophy of yoga (Yamas, Niyamas, etc.) - Types of yoga (Hatha, Vinyasa, Ashtanga, etc.)	Hours:5	Marks: 5
<b>Unit2:Physical Yoga Practices</b> -- Asanas (postures) for physical health and flexibility - Pranayama (breathing techniques) for respiratory health - Sun salutations and Vinyasa flow	Hours:5	Marks:5
<b>Unit3:Mental and Emotional Well-being</b> - Yoga Nidra (guided meditation) for stress relief - Mindfulness and meditation techniques - Yoga philosophy for emotional intelligence	Hours:5	Marks:5
<b>Unit4:Yoga for Health Promotion</b> - Yoga for chronic diseases (diabetes, hypertension, etc.) - Yoga for mental health (anxiety, depression, etc.) - Yoga for women's health (menstrual health, etc.)	Hours:5	Marks:5
<b>Unit 5:Yoga Philosophy and Lifestyle</b> - In-depth study of yoga philosophy (Yamas, Niyamas, etc.) - Applying yoga principles to daily life - Yoga and nutrition: healthy eating habits - - Yoga and sleep: improving sleep quality	Hours:5	Marks:5

<b>Unit 6: Research and Critical Thinking</b> - Research methods in yoga and health - Critical thinking and analysis of yoga research - Case studies and group discussions	Hours:5	Marks:5
---	---------	---------

**PRACTICAL**

<ul style="list-style-type: none"> <li>- Practical 1: Yoga Posture (Asana) Practice - Introduction to basic yoga postures, breathing techniques, and relaxation methods.</li> <li>- Practical 2: Breathing Techniques (Pranayama) Practice - Students practice various breathing techniques and understand their effects on the body.</li> <li>- Practical 3: Stress Reduction Techniques - Students practice yoga techniques for stress reduction, including meditation and relaxation methods.</li> <li>- Practical 4: Mindfulness Practice - Students practice mindfulness meditation and mindful movement.</li> <li>- Practical 5: Yoga for Chronic Diseases - Students learn and practice yoga sequences for managing chronic diseases, such as diabetes and hypertension.</li> <li>- Practical 6: Research Project - Students design and conduct a small-scale research project on the effects of yoga on physical or mental health.</li> </ul>	Hours: 30	Marks: 25
---	-----------	-----------

**SUGGETED READING**

**Textbooks:**

1. **“The Science of Yoga” by Ann Swanson**
2. **“Yoga Anatomy” by Leslie Kaminoff and Amy Matthews**
3. **“Yoga for Health and Wellness” by Barbara Benagh**
4. **“The Yoga Sutras of Patanjali” by Sri Swami Satchidananda**
5. **“Yoga Therapy: A Guide to the Therapeutic Use of Yoga” by Judith Lasater**
6. **“Yog Darshan” by PrativeTeronpi, (Language Assamese)**
7. **“Yog BidyarHatputhi” Published by SEBA**

**Research Articles:**

1. "Yoga as a Therapeutic Approach in Treating Anxiety and Depression" (Journal of Clinical Psychology)
2. "The Effects of Yoga on Blood Pressure and Cardiovascular Disease" (Journal of Alternative and Complementary Medicine)
3. "Yoga and Immune Function" (Journal of Behavioral Medicine)
4. "The Impact of Yoga on Mental Health in College Students" (Journal of American College Health)
5. "Yoga for Chronic Pain Management" (Journal of Pain Research)

**Online Resources:**

1. National Center for Complementary and Integrative Health (NCCIH) - Yoga and Health
2. American Council on Exercise (ACE) - Yoga and Fitness
3. Yoga International - Articles and Research on Yoga and Health
4. Journal of Yoga and Physical Therapy - Research Articles on Yoga and Health
5. World Health Organization (WHO) - Traditional Medicine and Yoga

\*\*\*\*\*



**Serial No-68**  
**NSS And Social Work**  
**SEC0306803**  
**(By LGB Girls College)**

**DISTRIBUTION OF MARKS:**

4. EndSemesterExamination:	TotalMarks:	30	
5.	SessionalExamination:		TotalMarks:
	20		
6.	Practical:	TotalMarks:	25
➤ TheoryCredit	02		
➤ PracticalCredit	01		
➤ No. of Required Classes	30 hours (Theory) + 30 hours (Practical)		
➤ No.ofNon-ContactClasses	00		
➤ <b>ParticularsofCourseDesigner: LGB Girls' College, Tezpur</b>			

**LEARNING OBJECTIVES:**

1. Understand social issues and community needs.
2. Learn to lead and manage teams, and develop leadership qualities.
3. Develop effective communication and interpersonal skills.
4. Cultivate a sense of social responsibility and citizenship.
5. Learn to identify and address community problems.
6. Encourage voluntary participation in community service.
7. Develop skills to work effectively in teams.
8. Learn to plan, execute, and evaluate community projects.

**LEARNING OUTCOMES:**

The potential learning outcomes for the undergraduate course on NSS and Social Works

1. **Community Engagement:** Ability to engage with communities, identify their needs, and

develop programs to address them.

2. **Leadership and Teamwork:** Develop leadership skills, work effectively in teams, and build collaborative relationships.
3. **Communication and Interpersonal Skills:** Enhance communication, interpersonal, and conflict resolution skills.
4. **Social Responsibility and Citizenship:** Cultivate a sense of social responsibility, citizenship, and community ownership.
5. **Problem-Solving and Project Management:** Develop skills to identify problems, plan, and execute projects to address them.
6. **Empathy and Understanding:** Demonstrate empathy and understanding towards diverse communities and social issues.
7. **Volunteerism and Community Service:** Develop a commitment to volunteerism and community service.
8. **Social Awareness and Sensitivity:** Enhance awareness and sensitivity towards social issues, diversity, and inclusivity.

## **THEORY**

-

<b>Unit 1: Introduction to NSS and Social Work</b> # Overview of NSS and its objectives # Importance of social work in community development # Understanding social problems and issues	Hours:5	Marks: 5
<b>Unit 2: Communication Skills for Social Work</b> # Verbal and non-verbal communication # Active listening and empathy # Conflict resolution and negotiation	Hours:5	Marks:5
<b>Unit 3: Community Engagement and Participation</b> #Principles of community engagement #Building relationships with community stakeholders #Participatory rural appraisal (PRA) techniques	Hours:5	Marks:5
<b>Module 4: NSS Programmes and Activities</b> # Overview of NSS programmes <b>(campus adoption, blood donation, etc.)</b>	Hours:5	Marks:5

#Planning and implementation of NSS activities		
#Documentation and evaluation of NSS projects		
<b>Module 5 : Social Work Theories and Methods</b> #Introduction to social work theories (empowerment, human rights, etc.) #Social casework, group work, and community organization # Counseling and communication skills	Hours:5	Marks:5
<b>Module 6 :Overview of NSS and its objectives</b> # Definition and scope of social work # History and evolution of social work in India	Hours:5	Marks:5

### PRACTICAL

- 20 hours of community service - Participation in NSS camps and activities - Project work and field visits	Hours: 30	Marks: 25
---	-----------	-----------

Here are some reference books for an NSS (National Service Scheme) and Social Work Skills course:

#### Textbooks

1. "Community Development: A Critical Approach" by Jim Ife
2. "Disaster Management: A Handbook for Social Workers" by Prabha V. Kumar
3. "Environmental Social Work" by Lena Dominelli

#### Indian Context

1. "Social Work in India" by A. K. Singh

2. **"Community Organization and Development in India" by R. K. Tiwari**
3. **"Disaster Management in India" by S. K. Goyal**
4. **"Environmental Issues and Social Work in India" by S. C. Rai**

#### **NSS Specific**

1. **"NSS: A Handbook for Programme Officers" by Ministry of Youth Affairs and Sports, Govt. of India**
2. **"NSS: A Guide for Volunteers" by Ministry of Youth Affairs and Sports, Govt. of India**

#### **Journals**

1. **Indian Journal of Social Work (IJSW)**
2. **Journal of Social Work (JSW)**
3. **International Journal of Social Welfare (IJSW)**
4. **Disaster Management and Response (DMR)**

\*\*\*\*\*

**Serial No-69**  
**Culture and heritage of Assam**  
**SEC0306903**  
**(By LGB Girls College)**

**DISTRIBUTION OF MARKS:**

7. EndSemesterExamination:	TotalMarks:	30	
8.	SessionalExamination:		TotalMarks:
	20		
9.	Practical:	TotalMarks:	25
➤ TheoryCredit	02		
➤ PracticalCredit	01		
➤ No. of Required Classes	30 hours (Theory) + 30 hours (Practical)		
➤ No.ofNon-ContactClasses	00		
➤ ParticularsofCourseDesigner:	<b>LGB Girls' College, Tezpur</b>		

**LEARNING OBJECTIVES:**

1. **Understand Assam's history** and its impact on the state's culture.
2. **Appreciate Assam's cultural diversity**, including tribes, languages, and traditions.
3. **Explore traditional Assamese art forms**, such as music, dance, theater, and handicrafts.
4. **Discover Assamese literary heritage**, including folklore, poetry, and contemporary writing.
5. **Learn about Assamese festivals and celebrations**, including Bihu, Durga Puja, and Ali Aye Ligang.
6. **Develop skills to promote and preserve** Assam's cultural heritage.
- 7.

**LEARNING OUTCOMES:**

1. **Ability to promote and preserve** Assam's cultural heritage.
2. **Develop traditional Assamese art forms**, such as music, dance, or handicrafts.
3. **Write about Assamese culture and heritage** in various formats (articles, blog posts, etc.).

4. **Design and implement cultural programs** to showcase Assamese heritage.
5. **Communicate effectively** about Assamese culture and heritage to diverse audiences.

## **THEORY**

-

<b>Module 1: Introduction to Assam</b> <ul style="list-style-type: none"> <li>• <b>History and geography</b></li> <li>• <b>Cultural diversity and tribes</b></li> </ul>	Hours:5	Marks: 5
<b>Module 2: Traditional Assamese Art Forms</b> <ul style="list-style-type: none"> <li>• <b>Music and dance (Bihu, Sattriya, etc.)</b></li> <li>• <b>Theater and performance art (Ankiya Nat, etc.)</b></li> <li>• <b>Handicrafts and textiles (Assamese silk, etc.)</b></li> </ul>	Hours:5	Marks:5
<b>Module 3: Assamese Literary Heritage</b> <ul style="list-style-type: none"> <li>• <b>Folklore and oral traditions</b></li> <li>• <b>Poetry and contemporary writing (Bryndawan, etc.)</b></li> <li>• <b>Literary movements and authors (Assamese literature, etc.)</b></li> </ul>	Hours:5	Marks:5
<b>Module 4: Assamese Festivals and Celebrations</b> <ul style="list-style-type: none"> <li>• <b>Bihu (Rongali, Kongali, Bhogali)</b></li> <li>• <b>Durga Puja and other Hindu festivals</b></li> <li>• <b>Ali Aye Ligang and other tribal festivals</b></li> </ul>	Hours:5	Marks:5
<b>Module 5: Preserving Assamese Cultural Heritage</b> <ul style="list-style-type: none"> <li>• <b>Challenges and opportunities</b></li> <li>• <b>Conservation efforts and initiatives</b></li> <li>• <b>Community engagement and participation</b></li> </ul>	Hours:5	Marks:5
<b>Module 6 Challenges in Preserving Assamese Cultural Heritage</b> <ul style="list-style-type: none"> <li>• <b>Impact of urbanization and modernization</b></li> <li>• <b>Lack of documentation and preservation efforts</b></li> <li>• <b>Limited resources and funding</b></li> </ul>	Hours:5	Marks:5

## **PRACTICAL**

<ul style="list-style-type: none"><li>- Practical Exercise 1: Conduct a field study on a traditional Assamese art form or festival.</li><li>- Practical Exercise 2: Develop a plan for preserving and promoting Assamese cultural heritage.</li><li>- Organize a cultural event or program showcasing Assamese heritage.</li></ul>	Hours: 30	Marks: 25
--	-----------	-----------

### **Reference Books for Culture and Heritage of Assam Skill Course**

Here are some recommended reference books for the course:

#### **History and Geography**

1. "A History of Assam" by Edward Gait
2. "The Geography of Assam" by S. K. Bhattacharya

#### **Traditional Assamese Art Forms**

1. "Assamese Dance and Music" by Thakur Anukul Chandra
2. "Handicrafts of Assam" by R. K. Nath

#### **Assamese Literary Heritage**

1. "An Anthology of Assamese Literature" edited by P. C. Dutta
2. "Assamese Poetry: A Critical Study" by H. K. Barua

#### **Assamese Festivals and Celebrations**

1. "Festivals of Assam" by M. C. Goswami
2. "Bihu: The Festival of Assam" by P. Goswami

#### **Preserving Assamese Cultural Heritage**

1. "Cultural Heritage of Assam" by P. C. Dutta
2. "Conservation of Cultural Heritage in Assam" by A. K. Sharma

#### **Additional Resources**

1. "Encyclopedia of Assam" (edited by S. K. Agarwal)
2. "Assam: A Cultural Profile" (edited by P. C. Dutta)

### Serial No-70

## Chemistry in Homecare and Laundry

SEC0307003

(By Pragjyotish College)

#### Distribution of Marks:

1. End Semester Examination	:	Total Marks:	30
2. Sessional Examination	:	Total Marks:	20
3. Practical	:	Total Marks:	25
➤ Theory Credit	:		02
➤ Practical Credit	:		01
➤ No. of Required Classes:			30 Hrs (Theory) + 30 Hrs (Practical)
➤ Course Designer	:		Dr. Saitanya Kr Bharadwaj, Department of Chemistry, Pragjyotish College Dr. Priyakshree Borthakur Department of Chemistry, Pragjyotish College

#### Learning Objectives:

- ❖ To get acquainted with the composition of different laundry and homecare products and to develop entrepreneurial skill

#### Learning outcome:

- ❖ Skill development for detergents and liquid soap, shampoo, hand wash making
- ❖ Knowledge of basic concepts and techniques of soap and detergent industry

#### UNIT I: Foundation of cleaning science

Marks: 3 (3 hours)

Types of cleaning agents, Surfactants, cleaning action/mechanism of chemicals

#### UNIT II: Soaps and Detergents

Marks: 10 (10 hours)

Introduction to soaps, raw materials and its selection, principles of soap making and chemistry of soap, saponification process



Detergents: composition, classification of detergents (anionic, cationic, nonionic, amphoteric), biodegradability, Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites, etc)

Synthetic detergents: Organic and inorganic raw materials for manufacturing detergents, Sulphonation of organic raw materials.

**Unit III: Bleaching and Dry cleaning agents**

**Marks: 5 (5 hours)**

Bleaching powder, bleaching soda: structure, preparation, mode of action and hazardous effects, water cleaning chemicals.

Dry cleaning agents, types, chemicals used in dry cleaning processes and its effect on the environment

**UNIT IV: Hand Care and Hygiene Products**

**Marks: 5 (5 hours)**

Principles of formulation of hand sanitizers and hand-wash; general ingredients and preparation of hand-wash and hand-sanitizer

Sanitizers and air fresheners: Composition, preparation and uses.

**Unit V: Formulation, packaging and marketing**

**Marks: 8 (8 hours)**

**Essential Ingredients for formulation; role of every component used in formulation; efficiency and economy;** formulation of commercial cleaning agents.

Packaging: importance, materials and various types (bottle, blister, strip, pouches, etc.)

Scope of marketing; distinction between marketing & selling; pricing and promotion; emerging trends in marketing

**Practical/ Hands on Training:**

**Marks: 25 (30 Hrs)**

(Students should perform any three experiments)

- a) Carry out saponification reaction and determination saponification value
- b) Preparation of soap (bathing and washing soap) using different natural and artificial ingredients
- c) Determination of total fatty matter, alkali content and pH of soaps
- d) Quality testing of soap- moisture and volatile matter, alkali content, total fatty matter, free acidity, chlorides and foam height
- e) Manufacture of liquid soap (shampoo) and laundry soap.
- f) Sulphonation of organic raw materials (examples fatty acids, vegetable oils)
- g) Preparation of hand-wash and sanitizer
- h) Industrial visit and preparation of a report.

**Suggested Reading:**

- Ajay Kr. Gupta, Handbook on Soaps, Detergents & Acid Slurry , 3rd revised edition; NIIR Board publication. ISBN: 9789381039472

- P. K. Chattopadhyay, Modern Technology of Soaps, Detergents & Toiletries (with Formulae & Project Profiles) 4th Revised Edition, NIIR Board publication; ISBN: 9789381039700
- H. Panda, Herbal Soaps & Detergents Handbook, NIIR Board publication; ISBN: 9789381039007

## Serial No-71

### Green Chemistry and Nanotechnology

**SEC0307103**

**(By Pragjyotish College)**

#### Distribution of Marks

4. End Semester Examination	:	Total Marks: 30
5. Sessional Examination	:	Total Marks: 20
6. Practical	:	Total Marks: 25

➤ Theory Credit	:	02
➤ Practical Credit	:	01
➤ No. of Required Classes:		30 Hrs (Theory) + 30 Hrs (Practical)
➤ Course Designer	:	Dr. Priyakshree Borthakur

Department of Chemistry, Pragjyotish College  
Dr. Saitanya Kr Bharadwaj,  
Department of Chemistry, Pragjyotish College

#### Course Objectives

- To provide a basic understanding of Green Chemistry and nanotechnology
- To comprehend the role of green chemistry in Nanoscience and Nanotechnology

#### Learning outcome

- Students will be able to know the importance of Green chemistry and Nanotechnology
- They will be able to demonstrate skills using the alternative green solvents in synthesis, enzymatic catalysis
- Students will be able to carry out the green chemical method for nanomaterial synthesis

**Unit I: Introduction to Green Chemistry**

**Marks: 6 (6 Hrs)**

Definition and necessity; tools of Green Chemistry; principles of green chemistry

## **Unit II: Examples of Green Chemistry**

**Marks: 12 (12 Hrs)**

Starting material, reactions, reagents, solvents, products

Selection of solvent: Pfizer Solvent Selection Tool, (GSK) Solvent Selection Guide, Choice of solvent in chromatography and extraction processes.

Heterogeneous catalysis: use of zeolites, silica, alumina supported catalysis

Bio catalysis: Enzymes, microbes, phase transfer catalysis (micellar /surfactant)

## **Unit III: Nanotechnology in Green chemistry**

**Marks: 12 (12 Hrs)**

Basic concepts of Nano science and Nanotechnology, Bottom-up approach and Top-down approaches with examples – Synthesis of Nanomaterials, Classification of Nanomaterials, Chemical and Physical Properties and Applications of Nanomaterials.

## **Practical Credit: 1**

**Marks: 25 (30 Hrs)**

(Students should perform any two experiments)

1. Acetylation of 1<sup>o</sup> amine by green method: Preparation of acetanilide
2. Rearrangement reaction in green conditions: Benzil-Benzilic acid rearrangement
3. Green oxidation reaction: Synthesis of adipic acid
4. Preparation and characterization of biodiesel from vegetable oil/ waste cooking oil
5. Preparation and characterization of metal Nanoparticles using green chemistry approach.

## **Suggested Readings:**

- Green Chemistry: theory and practice, P.T. Anatas and J.C. Warner, Oxford University Press, 1998.
- Green Chemistry, V. K. Ahluwalia, Narosa Publishing House Pvt. Ltd., New Delhi, 2012.
- An Introduction to Nanomaterials and Nanoscience, Asim K. Das, Mahua Das, CBS publishers and distributors pvt. Ltd. 2019
- Green Processes for Nanotechnology: From Inorganic to Bioinspired Nanomaterials, Vladimir A. Basiuk, Elena V. Basiuk, Springer, 2015
- University of Oregon Greener Education Materials Database [<http://greenchem.uoregon.edu/gems.html>]
- Experiments in Green and Sustainable Chemistry, Roesky, H., Kennepohl, D., Eds., Wiley-VCH, Weinheim, 2009.

- Green Organic Chemistry in Lecture and Laboratory, Dicks, A.P., Ed., CRC Press Taylor & Francis Group, Boca Raton, FL, 2012.

## **Serial No-72**

### **Biostatistics and its Application in Biology**

**SEC0307203**

**(By M.C. College)**

#### **Course objective:**

- To understand the application of Biostatistics in Biology
- To have concepts on Population and sampling
- Generate idea on Central Tendency
- To organise and display data
- Use of Excel and Libreoffice in Biostatistics.

#### **Learning Outcome:**

Upon completion of the course the students should be able to understand the basic concepts of Statistics and its application in Biology.

#### **Theory (Credit 2)**

1. Introduction to Biostatistics: Aim and scope of biostatistics, uses of statistics in Biology (5 Lectures)
2. Basic concepts of central tendency: Calculation of mean, median and mode of group and ungrouped data (6 Lectures)
3. Basic concept of standard deviation, standard error and their application (5 Lectures)
4. Graphical representation of data- Line diagram, Bar diagram, Pie diagram (6 Lectures)
5. Use of computers in Biostatistics: Data entry and arrangement in excel/ libreoffice (8 Lectures)

#### **Practical (Credit 1)**

1. Calculate mean, median and mode from the given sample using ms excel/libreoffice
2. Calculate standard deviation, standard error using ms excel/libreoffice
3. Graphical representations of statistical data using computers.

#### **Suggested Books**

1. Statistics for terrified biologists by H van Emden. 2<sup>nd</sup> Edition.
2. Biostatistics by P. Ramakrishnan, Saras Publication
3. Biostatistical Analysis by Jerrold H Zar, IV Edition.

**Serial No-73**  
**Semiconductor Devices**  
**SEC0307303**  
**(By Morigaon College)**

**Distribution of Marks**

Theory (end term): 30

Sessional Exam 20

Practical Examination: 25

**Learning objectives:**

- \* Students will be able to explain the behavior of semiconductors, including energy bands, carrier statistics, and transport phenomena.
- \* To introduce students to basics semiconductor devices and their hands-on practice
- \* Students will develop problem-solving skills in the context of semiconductor devices and circuits.

**Learning outcomes:**

- \* Students will be prepared for advanced studies or industry roles in semiconductor engineering, including device design, fabrication, and testing.
- \* Skill will boost up, which may favour job opportunity in the field of semiconductor devices and electronics

Theory credit: 02

Practical credit: 01

No. of required classes: 30 (Th.)+30(Pr.)

Particular of the course designer: **Department of Physics, Morigaon College**

## Syllabus

### Theory (Credit 2):

Serial No./Chapter Name	Details	Hours	Mark
<b>1. Basics Introduction</b>	Class of materials: Metal, Semiconductor and insulator, intrinsic and extrinsic semiconductor, Doping, P-type, N-type semiconductor. Diffusion and drift current.	5	Credit 2
<b>2. PN semiconductor diode</b>	Characteristics of diode, Basics properties. Solar cell, Zener diode, Photo-cell. Uses of diodes: Rectifications (Half wave, full wave, Wien bridge), regulated power supply.	10	
<b>3. Transistors</b>	Basics principle, working of transistors. Transistor characteristics. Transistor as an amplifier. Q-point, load line. RC-Coupled amplifier. Basics ideas of FET and MOSFET.	10	
<b>4. OPAMP</b>	Basic of OPAMP, Feedback in amplifier, OPAMP as an adder, subtractor, integrator etc.	5	

### Practical (Credit 1):

Serial No.	List of practicals	Hours	Mark
1	1. To check the type of semiconductor using, Hall Measurement set-up. 2. To study the characteristics of PN semiconductor diode. 3. Design Wien bridge rectifications set-up. 4. To study the efficiency of a solar cell. 5. Design RC coupled amplifier and study its frequency response.	30	25

**Suggested readings:**

1. Semiconductor devices, S.M. Sze, 2<sup>nd</sup> Edition, 2002, Wiley
2. Principles of electronics, Mehta and Mehta, S. Chand

**Serial No-74**  
**Programming in Mathematics**  
**SEC0307403**  
**(By LOKD College)**

*Rays  
Date  
12/8/2021*

SEC COURSE

Semester: III(FYUGP)

Course Name: Programming in Mathematica

Credits: 3

Credit Distribution: 2(Theory) + 1 (Practical),  
2 lectures, 1 practical per week

**Content**

**Course Objectives:** This course aims at familiarizing students with the usage of the Computer Algebra System **Mathematica**. The basic emphasis is on plotting and working with matrices using Mathematica.

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

1. Use Mathematica as a calculator and for plotting functions and animations.
2. Use Mathematica for various applications of matrices such as solving system of equations and finding eigenvalues and eigenvectors.

**Unit 1 (1 Credit): Introduction to CAS (Mathematica):** Computer Algebra System (CAS), Use of Mathematica as a calculator, Computing and plotting functions in 2D, Plotting functions of two variables using Plot, 3D and Contour Plot, Plotting parametric curves surfaces, Customizing plots, Animating plots, Producing tables of values, Working with piecewise defined functions, Combining graphics.

**Unit 2 (1 Credit): Working with Matrices:** Simple programming in Mathematica, Performing Gauss elimination, Operations (transpose, determinant, inverse), Minors and cofactors, Working with large matrices, Solving system of linear equations, Rank and nullity of a matrix, Eigenvalue, Eigenvector and diagonalization.

**Practical (1 Credit):** Six practicals should be done by each student. The teacher can assign practical from the exercises from [1] and [2].

**2. Recommended books :**

1. Bindner, Donald & Erickson, Martin. (2011). A Student's Guide to the Study, Practice, and Tools of Modern Mathematics, CRC Press, Taylor & Francis Group, LLC.
2. Torrence, Bruce F., & Torrence, Eve A. (2009). The Student's Introduction to Mathematica: A Handbook for Pre-calculus, Calculus and Linear Algebra (2nd ed.). Cambridge University Press

**3. Paper Offered by** : B. Borooah College, Guwahati-07



**Serial No-74**  
**Programming in Mathematics**  
**SEC0307403**  
**(By B. Borooah College)**

**Skill Enhancement Course (SEC)**

**Programming in Mathematica**

**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical: Total Marks:	25
Theory Credit	02
Practical Credit	01
No. of Required Classes	30 hours (Theory) + 30 hours (Practical)
No. of Non-Contact Classes	00
Particulars of Course Designer	Department of Mathematics, B Borooah

**Learning objectives:**

- ❖ To familiarize students with the usage of the Computer Algebra System Mathematica
- ❖ To emphasize on plotting and working with matrices using Mathematica

**Learning outcomes:**

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

- ❖ Use Mathematica as a calculator and for plotting functions and animations.
- ❖ Use Mathematica for various applications of matrices such as solving system of equation eigenvalues and eigen vectors

**THEORY**

<b>Unit 1: Introduction to CAS (Mathematica)</b> Computer Algebra System (CAS), Use of Mathematica as a calculator, Computing and	F
--	---

- ❖ To emphasize on plotting and working with matrices using Mathematica

**Learning outcomes:**

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

- ❖ Use Mathematica as a calculator and for plotting functions and animations.
- ❖ Use Mathematica for various applications of matrices such as solving system of equation eigenvalues and eigen vectors

**THEORY**

<b>Unit 1: Introduction to CAS (Mathematica)</b> Computer Algebra System (CAS), Use of Mathematica as a calculator, Computing and plotting functions in 2D, Plotting functions of two variables using Plot3D and Contour Plot, Plotting parametric curves surfaces, Customizing plots, Animating plots, Producing tables of values, Working with piecewise defined functions, Combining graphics.	F
<b>Unit 2: Working with Matrices</b> Simple programming in Mathematica, Performing Gauss elimination, operations (transpose, determinant, inverse), Minors and cofactors, Working with large matrices, Solving system of linear equations, Rank and nullity of a matrix, Eigenvalue, Eigen vector and diagonalization.	F

**PRACTICAL**

<ol style="list-style-type: none"><li>1. Use Mathematica as a calculator</li><li>2. Compute values of certain functions and plot the graphs of the functions</li><li>3. Use Plot3D to draw 3-dimesional surfaces and customize the graphs</li><li>4. Make a table of values and combine graphs</li><li>5. Perform matrix operations and Gauss elimination</li><li>6. Solve a system of linear equations</li><li>7. Find eigenvalues and eigenvectors</li></ol>	H
--	---

**Serial No-75**

**Herbal Drug Technology**

**SEC0307503**

**(By Abhayapuri College)**

Credits: 3 (Marks: 75)

Distribution of Marks:

1. End Semester Examination: Total Marks: 30

2. Sessional Examination: Total Marks: 20

3. Practical: Total Marks: 25

❖ Theory Credit 02

❖ Practical Credit 01

❖ No. of Required Classes 30 hours (Theory) + 30 hours (Practical)

❖ Particulars of Course Designer: **Department of Botany, Abhayapuri College**

**Learning objectives:**

- Concept on the plants used as traditional medicine, and understanding the process of cultivation, harvesting, processing, storage, marketing and utilization of medicinal plants.
- Brief knowledge on medicinal compounds obtained from plants and comprehensive idea about systematic position, medicinal uses of Tulsi, Ginger, Fenugreek, Indian goose berry and Ashoka.
- Overview on the phytochemistry of medicinal herbs and identification, utilization of medicinal plants.
- Basic knowledge on the secondary metabolites and its preliminary screening tests.

**Learning Outcomes:**

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

- Identify traditional medicinal plants of the locality.
- Understand the cultivation, harvesting and marketing practices of economically important medicinal plants.
- Learn about the active compounds in medicinal plants and the techniques used to test and identify secondary metabolites.
- Gain insights into the herbal medicine industry, including institutions involved in herbal drug production and understand the challenges faced by the industry

THEORY: (Hour-30, Marks-30)

<b>Unit 1:</b> Herbal medicines: history and scope- definition of medical terms - cultivation - harvesting - processing - storage - marketing and utilization of medicinal plants	Hours: 4	Marks:5
---	----------	---------

<b>Unit 2:</b> Pharmacognosy - systematic position and medicinal uses of the following herbs in curing various ailments; Tulsi, Ginger, Fenugreek, Indian Goose berry and Arjun. Analytical pharmacognosy- Phytochemical screening <i>tests for secondary metabolites</i> .	Hours: 10	Marks: 9
<b>Unit 3:</b> Phytochemistry - active principles and methods of their testing - identification and utilization of the medicinal herbs; <i>Catharanthus roseus</i> (cardiotonic), <i>Withania somnifera</i> (drug acting on nervous system), <i>Clerodendron phlomoides</i> (anti-rheumatic) and <i>Centella asiatica</i> (memory booster).	Hours: 10	Marks: 9
<b>Unit 4:</b> Herbal drugs industry: Present scope, future prospects. A brief account of plant-based industries and institutions involved in work on medicinal and aromatic plants in India. Limitations of herbal drug production.	Hours: 6	Marks: 7

PRACTICAL: (Hour- 30, Marks- 25)

<ol style="list-style-type: none"> <li>1. Phytochemical screening tests for secondary metabolites (alkaloids, Tannins, Saponins, flavonoids, steroids, glycosides, triterpenoids, phenolic compounds) of important locally available medicinal plants.</li> <li>2. Tests for volatile oil, resins &amp; lignin.</li> <li>3. Survey, Collection, and preservation of indigenous herbs.</li> </ol>	Hours: 30	Marks: 25
--	-----------	-----------

### Suggested Readings

1. Textbook of pharmacognosy and phytochemistry 2Ed, B. Shah and A.K. Seth, 2019. CBS.

2. A Text Book of HERBAL DRUG TECHNOLOGY, P. Kumar, P. Wal, Y. Singh. Shashwati Publications.
3. Textbook of Pharmacognosy and Phytochemistry-II, A.K. Saini, A. Nivas V, S.A. Adhoni, M.R. D'souza, A. Singh. Shashwati Publications.
4. Glossary of Indian medicinal plants, R.N.Chopra, S.L.Nayar and I.C.Chopra, 2018. Surjeet Publications.
5. The Indigenous Drugs of India, K.L. Dey, 2023. Gyan Publishing House.
6. Pharmacognosy, C.K.Kokate et al. 1999. Nirali Prakashan.

**Serial No-76**

**Natural Resource Management**

**SEC0307603**

## (By BH College)

### Distribution of Marks:

1. End semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical: Total Marks:	25
➤ Theory Credit	02
➤ Practical Credit	01
➤ No. of. Required Classes	30 hours (Theory)+ 30 hours (Practical)
➤ No. of. Non-Contact Classes	
➤ Particulars of Course Designer	Department of Botany, Gauhati University

### Learning objectives:

- ❖ Students will understand the key concepts of natural resources management.
- ❖ Identify and describe different types of natural resources.
- ❖ Understand the importance of natural resources and their role in ecosystems.
- ❖ Explain the principles of sustainable natural resources management.
- ❖ Describe the impact of human activities on natural resources.
- ❖ Develop and implement effective conservation and management strategies.

### Learning outcomes:

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

- ❖ Students will be able to analyze the impact of human activities on natural resources.
- ❖ Students will understand and apply principles of sustainable natural resource management.
- ❖ Students will be able to develop and implement effective conservation and management strategies.
- ❖ Students will understand policy and legal frameworks for natural resource management.
- ❖ Students will be able to evaluate the economic, social and environmental benefits of natural resource management.
- ❖ Students will develop problem solving and decision making skills for natural resources management.
- ❖ Students will understand the role of stakeholders and community engagement in natural resource management.
- ❖ Students will be able to apply ecological principles to natural resource management.

- ❖ Students will possess knowledge of climate change impacts on natural resources and management strategies.

### THEORY: (Hour-30, Marks- 30)

<b>Unit 1: <i>Natural resources</i></b> Definition and types	Hours: 1	Marks: 1
<b>Unit 2: <i>Sustainable utilization</i></b> Concept, approaches (economic, ecological and social-cultural)	Hours: 3	Marks: 4
<b>Unit 3: <i>Land</i></b> Utilization (agricultural, horticultural, silvicultural); Soil degradation and management	Hours: 6	Marks: 4
<b>Unit 4: <i>Water</i></b> Fresh water (rivers, lakes, groundwater, aquifers, watershed); Wetlands; Threats and management strategies	Hours: 6	Marks: 2
<b>Unit 5: <i>Biological Resources</i></b> Biodiversity-definition and types; Significance; Threats; Management strategies; IPR; CBD	Hours: 5	Marks: 6
<b>Unit 6: <i>Forests</i></b> Definition, Cover and its significance (with special reference to North East India); forest products with special reference to Assam; Depletion; Management	Hours: 4	Marks: 4
<b>Unit 7: <i>Energy</i></b> Renewable and non-renewable sources of energy.	Hours: 2	Marks: 4
<b>Unit 8: <i>Contemporary practices in resources management</i></b> EIA, GIS, Carbon Footprint; Waste management	Hours: 3	Marks: 5

### PRACTICAL: (Hour-30, Marks- 25)

<ol style="list-style-type: none"> <li>1. Collection of data on forest covers of specific area</li> <li>2. Measurement of dominance of woody species by DBH (diameter at breast height) method</li> <li>3. Calculation and analysis of ecological footprint</li> <li>4. Uses of GPS and GIS (Mapping of an area)</li> </ol>	Hours: 30	Marks: 25
---	-----------	-----------

**Serial No-76**  
**Natural Resource Management**  
**SEC0307603**  
**(By BN College)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

Theory Credit: **02**

Practical Credit: **01**

No. of Required Classes: 30 hours (Theory) + 30 hours (Practical)

Particulars of Course Designer: Department of Botany, B.N. College (Autonomous), Dhubri

**Learning objectives:**

Basic understanding on different types of natural resources and their ecological, economical and socio-cultural values.

- ❖ Comprehensive knowledge of land, water, energy and forest resources.
- ❖ Overall knowledge on resource degradation, their judicious use and management for sustainability.
- ❖ Knowledge on biodiversity - its importance and management.
- ❖ Knowledge on National and international efforts in resource management and conservation.

**Learning outcomes:**

- ❖ Students will be able to know about various types of natural resources and their importance in human welfare.
- ❖ Understanding the causes of Natural resource depletion.
- ❖ Knowledge regarding natural resource management.
- ❖ Role of various national and international agencies in natural resource management and its conservation.

**1.1 THEORY ( 2 credit)**

<b>Units</b>	<b>Hours:</b>	<b>Marks:</b>
<b>Unit 1: Natural resources</b> Definition and types	2	2
<b>Unit 2: Energy &amp; Sustainable utilization</b> Renewable and non-renewable sources of energy; Concept, approaches (economic, ecological and socio-cultural)	4	4
<b>Unit 3: Land &amp; Water</b> Soil degradation and management; Fresh water (rivers, lakes, groundwater, Wetlands; Threats and management strategies	6	4



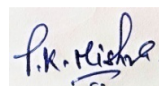
<b>Unit 4: Biological Resources</b> Biodiversity-definition and types; Significance; Threats and Management strategies	6	8
<b>Unit 5: Forest</b> Definition, Cover and its significance (with special reference to NE India); Major and minor forest products; Depletion and Management	6	8
<b>Unit 6: National and international efforts in resource management and conservation</b> Policy and Legislation, CBD, IUCN, CITES, National Biodiversity Action Plan	6	4

### 1.2 PRACTICAL( 1 credit)

Units	Hours:	Marks:
<b>Unit 1:</b> Measurement of dominance of woody species by DBH (Diameter at Breast Height) method	<b>30</b>	<b>25</b>
<b>Unit 2:</b> Study of soil pH		
<b>Unit 3:</b> Determination of dissolved oxygen in various water samples		
<b>Unit 4:</b> Field studies		

### Suggested Reading:

1. Sharma, P.D. (2015), Ecology and Environment. Rastogi publications Meerut, New Delhi, 12<sup>th</sup> edition.
2. Wang, L.K, (2021). Integrated Natural Resources Management. Springer, 2021
3. Vasudevan, N. (2006). Essentials of Environmental Science. Narosa Publishing House, New Delhi.
4. Singh, J. S., Singh, S.P. and Gupta, S. (2006). Ecology, Environment and Resource Conservation. Anamaya Publications, New Delhi.
5. Rogers, P.P., Jalal, K.F. and Boyd, J.A. (2008). An Introduction to Sustainable Development. Prentice Hall of India Private Limited, New Delhi.



HOD, Botany

B.N.College (Autonomous),Dhubri

**Serial No-76**  
**Natural Resource Management**  
**SEC0307603**  
**(By MG College)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Project Work: Total Marks:	25
Theory Credit	02
Project Credit	01

**Learning Objectives:**

Upon completion of this lesson, students will be able to

- ❖ define natural resources.
- ❖ Distinguish between different types of natural resources.
- ❖ Create a personal inventory of consumption of natural resources.

**Learning Outcomes:**

- ❖ Describe Ecological processes, including human impacts that influence ecosystem change, natural succession and the future sustainability of natural resources.
- ❖ Characterize natural resources and be able to quantify at least one of these resources.
- ❖ Envision desired future conditions in an area to achieve a set of natural resource- related objectives, prescribed management actions needed to achieve those objectives, and evaluate success of these actions.

**Group- A**

**Chapter 1**

Meaning and concept of Resources, wealth and resource, relation between resource and development. Mark- 15

**Chapter – 2**

Classification and characteristics of resources, country, world and resource mark – 15

**Chapter – 3**

Natural resource for development, natural resource use and management ( Soil, Water, Forest, Petroleum and coal ), natural resource conservation mark – 20

**Group - B**

**Serial No-76**  
**Natural Resource Management**  
**SEC0307603**  
**(By GLC College)**

**Distribution of Marks:**

- |   |   |    |
|---|---|----|
| 1. End Semester Examination: Total Marks: | 30  |    |
| 2. Sessional Examination: Total Marks:    |   | 20 |
| 3. Practical: Total Marks:                |   | 25 |
| ➤ Theory Credit                           | 02  |    |
| ➤ Practical Credit                        |   | 01 |
| ➤ No. of Required Classes:                | 30 Hours (Theory) + 30 Hours (Practical)                    |    |
| ➤ Particulars of course designer:         | Department of Botany, G. L. Choudhury college, Barpeta Road |    |

**Learning objectives:**

- ❖ To develop an appreciation for the ecological diversity of the state.
- ❖ To maintain the ecological balance for sustainable development.
- ❖ To understand the impact of changes in lifestyles and the economic base of the region and the state and the implications for land management.
- ❖ To understand the guiding principles of land stewardship and economic sustainability.

**Learning outcomes:**

After the completion of this course students may be able to:

- ❖ Acquire knowledge on the importance of natural resource management to human societies.
- ❖ Understand the influence of human culture and settlement on terrestrial, aquatic, and atmospheric systems.
- ❖ Demonstrate the methodology of system integration and best practices of conservation management.
- ❖ Conduct the performance of field monitoring, data collection, mapping, data analysis, record keeping, and reporting.

**THEORY CREDIT- 02**

Units	Hours	Marks
<b>Unit 1: <i>Natural resources</i></b> Definition and types.	2 hours	2
<b>Unit 2: <i>Energy</i></b> Renewable and non-renewable sources of energy	3 hours	3
<b>Unit 3: <i>Land</i></b> Utilization (agricultural, pastoral, horticultural,	5 hours	5

silvicultural); Soil degradation and management.		
<b>Unit 4: <i>Water</i></b> Fresh water (rivers, lakes, groundwater, aquifers, watershed); Marine; Estuarine; Wetlands; Threats and management strategies.	5hours	5
<b>Unit 5: <i>Forests</i></b> Definition, Cover and its significance (with special reference to India); Major and minor forestproducts; NTFPs; Depletion; Management.	5hours	5
<b>Unit 6: <i>Biological Resources</i></b> Biodiversity- Definition and types; Significance; Threats; Management strategies; IPR; CBD; National Biodiversity Action Plan.	5hours	5
<b>Unit 7: <i>Contemporary practices in resource management</i></b> EIA, GIS, Carbon footprint, Resource Accounting; Waste management	5hours	5

#### **PRACTICAL CREDIT- 01**

<b>Units</b>	<b>Hours</b>	<b>Marks</b>
1. Estimation of solid waste generated by a domestic system (biodegradable and non-biodegradable) and its impact on land degradation. 2. Collection of data on forest cover of specific area. 3. Measurement of dominance of woody species by DBH (diameter at breast height) method. 4. Uses of GPS and GIS (Mapping of an area).	30 hours	25

#### **SUGGESTED READINGS**

1. Vasudevan, N. (2006). Essentials of Environmental Science. Narosa Publishing House, New Delhi.
2. Singh, J. S., Singh, S.P. and Gupta, S. (2006). Ecology, Environment and Resource Conservation. Anamaya Publications, New Delhi.
3. Rogers, P.P., Jalal, K.F. and Boyd, J.A. (2008). An Introduction to Sustainable Development. Prentice Hall of India Private Limited, New Delhi.

**Serial No-77**  
**Atma Nirbhar Bharat: Pathways to Self-Reliance**  
**SEC0307703**  
**(By Birjhora Mahavidyalaya)**

**Particular of course designer:**

1. **Name:** Pranjana Niyogi
2. **Designation:** Assistant Professor, Department of Botany, Birjhora Mahavidyalaya, Bongaigaon, 783380.
3. **Mail id :** [pranjananiyogi@gmail.com](mailto:pranjananiyogi@gmail.com)
4. **Ph no:** 8638237571

---

**Course Objective:**

The course aims to instill a sense of self-reliance and entrepreneurship among students, aligning with the vision of Atma Nirbhar Bharat. It will provide students with essential skills and knowledge to contribute towards building a self-sufficient nation by developing their practical skills and enhancing their understanding of sustainable practices and innovation.

**Learning Outcome:**

Students will gain an understanding of the philosophy behind Atma Nirbhar Bharat and their potential role in contributing to a self-reliant India. Students will develop practical entrepreneurial and technical skills essential for self-reliance. They will also learn financial management techniques. Students will understand the significance of innovation and sustainability in self-reliance. They will also gain experience in developing and implementing sustainable and socially responsible business practices.

---

**Unit 1: Introduction to Atma Nirbhar Bharat**

**15 hours/ 15 marks**

- **1.1 Understanding Atma Nirbhar Bharat:**
  - Concept and Vision
  - Historical Context: Self-Reliance in India
  - Current Initiatives under Atma Nirbhar Bharat
- **1.2 Role of Youth in Atma Nirbhar Bharat:**

- Entrepreneurship and Innovation
- Skill Development and Employment Opportunities
- Case Studies of Successful Atma Nirbhar Initiatives
- **1.3 Policies and Schemes:**
  - Overview of Government Policies Supporting Self-Reliance
  - Accessing Financial Support and Grants Legal and Regulatory Framework for Startups and MSME
- **1.4 Sustainable Development:**
  - Principles of Sustainable Practices in Business
  - Importance of Environmental Conservation in Self-Reliance
  - Circular Economy and Resource Efficiency
- **1.5 Innovation and Technology:**
  - Role of Innovation in Achieving Self-Reliance
  - Case Studies of Indigenous Innovations
  - Hands-on Projects: Developing Innovative Solutions for Local Problems
- **1.6 Community and Social Entrepreneurship:**
  - Social Entrepreneurship and its Impact
  - Developing Community-Based Enterprises

## **Unit 2: Skill Development for Self-Dependency**

**15 hours/ 15 marks**

- **2.1 Entrepreneurial Skills:**
  - Basics of Starting a Business
  - Identifying Opportunities and Market Needs
  - Business Planning and Risk Management
  - Digital Marketing and E-commerce
- **2.2 Technical Skills Development:**
  - Introduction to Relevant Technologies (e.g., Digital Tools, Sustainable Practices)
  - Hands-on Workshops: Crafting, Manufacturing, Agriculture, etc.
  - Utilizing Local Resources for Business
- **2.3 Financial Literacy:**
  - Basics of Finance and Accounting
  - Accessing and Managing Microfinance
  - Financial Planning and Investment

## **Practical Activities:**

**30 hours/ 25 marks**

- Business Simulation Exercises
- Product Development Projects using Local Resources
- Field Visits to Local Enterprises/Workshops
- Innovation Challenges: Creating Solutions for Local Issues
- Sustainability Projects: Implementing Eco-friendly Practices
- Community Engagement: Developing Social Enterprise Models
- Case Studies: Social Enterprises Driving Atma Nirbhar Bharat

### **Suggested Readings:**

1. Kumar, S., & Gupta, P. (2021). *Atma Nirbhar Bharat: The Road Ahead*. New Delhi: Sage Publications.
  2. Sharma, R., & Mehta, A. (2020). *Entrepreneurship and Innovation in India: The Path to Self-Reliance*. New Delhi: Oxford University Press.
  3. Ministry of Skill Development and Entrepreneurship. (2020). *Skill India Handbook: A Guide to Skilling Opportunities*. New Delhi: Government of India.
  4. Sen, A., & Singh, P. (2021). *Sustainable Development in India: Principles and Practices*. New Delhi: Routledge.
  5. Gupta, A., & Rajan, A. (2020). *Financial Literacy and Inclusion in India: Pathways to Economic Self-Reliance*. New Delhi: Springer.
-

**Serial No-78**  
**Everyday Life Skills for Societal Functioning**  
**SEC0307703**  
**(By Birjhora Mahavidyalaya)**

**Particular of course designer:**

1. **Name:** Pranjana Niyogi
2. **Designation:** Assistant Professor, Department of Botany, Birjhora Mahavidyalaya, Bongaigaon, 783380.
3. **Mail id :** [pranjananiyogi@gmail.com](mailto:pranjananiyogi@gmail.com)
4. **Ph no:** 8638237571

---

**Course Objective:**

This course aims to equip students with essential life skills required for managing everyday responsibilities in a societal context. It focuses on practical knowledge and skills necessary for navigating daily tasks such as bill payments, bookings, and accessing social services, thereby fostering independence and confidence in handling real-world situations.

**Learning Outcome:**

Students will gain an understanding of their responsibilities as citizens and learn how to access and utilize public services effectively. Students will develop practical skills in managing daily tasks like paying bills, booking services, and accessing essential amenities, fostering independence in managing day-to-day life.

**Unit 1: Understanding Civic Responsibilities and Services      15 hours/ 15 marks**

- **1.1 Introduction to Civic Responsibilities:**
  - Understanding the Role of a Responsible Citizen
  - Basic Rights and Duties in a Society



- Overview of Public Services and Their Importance
- **1.2 Accessing Public Services:**
  - Understanding Government Services and Schemes
  - Importance of Identity Documents (Aadhaar, PAN, etc.)
  - Introduction to Digital India Initiatives: e-Governance and Online Services
- **1.3 Social Responsibility and Community Engagement:**
  - Role of NGOs and Social Organizations
  - Volunteering and Social Work
  - Contacting and Collaborating with NGOs

## **Unit 2: Practical Life Skills for Daily Living**

**15 hours/ 15 marks**

- **2.1 Managing Utility Services:**
  - How to Pay Utility Bills (Electricity, Water, Gas)
  - Online and Offline Methods for Booking LPG Cylinders
  - Managing Mobile and Internet Services
- **2.2 Transportation and Travel:**
  - Booking Railway and Bus Tickets (Online and Offline Methods)
  - Understanding the IRCTC Platform and App-Based Booking Services
  - Planning and Managing Local and Intercity Travel
- **2.3 Accessing Healthcare and Emergency Services:**
  - How to Register for Health Insurance Schemes
  - Booking Doctor's Appointments (Online and Offline)
  - Accessing Emergency Services (Police, Fire, Ambulance)

## **Practical Activities:**

**30 hours/ 25 marks**

- Simulated Exercises on Bill Payments and Booking Services
- Field Visits to Service Providers (Post Office, Railway Station, Utility Office)
- Hands-on Practice with Online Service Portals (IRCTC, Gas Agencies, Government Portals)

## **Suggested Readings:**

1. Patel, R., & Kumar, S. (2020). *Life Skills for Everyday Living: Navigating Daily Responsibilities*. New Delhi: Sage Publications.
2. Desai, M., & Verma, P. (2021). *Digital India: A Guide to Government Services and Schemes*. New Delhi: Oxford University Press.
3. Ministry of Social Justice and Empowerment. (2020). *Citizen's Handbook: Accessing Public Services in India*. New Delhi: Government of India.
4. Singh, A., & Gupta, R. (2021). *Managing Everyday Tasks: A Practical Guide for Independent Living*. New Delhi: Routledge.
5. Sharma, P., & Chaturvedi, V. (2021). *NGOs and Social Work in India: Connecting with the Community*. New Delhi: Springer.

**Serial No-79**  
**Data Analysis Using SPSS**  
**SEC0307903**  
**(By Nalbari College)**

**Distribution of Marks:**

1. End Semester Examination : Total Marks: 30
2. Sessional Examination : Total Marks: 20
3. Practical : Total Marks: 25

- Theory credit :02
- Practical Credit : 01
- No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
- Particulars of Course Designer : Department of Statistics, Nalbari College, Nalbari

**Objective:**

- 1) To train students in SPSS Software
- 2) To expose the students to the analysis of statistical data

**Learning Outcome:**

On completing this course students will:

- Understand about the basic functions of SPSS software and their use.
- Understand how to manage variables and generate descriptive statistics to describe data.
- be able to identify relationship between variables.
- be able to carry out inferential statistical analysis using SPSS

**THEORY**

<b>Unit 1:</b> Data Creation, import data from other source, selecting cases, sorting cases, recoding variables, compute new variables, exporting output to MS Excel and Word. Plot a Graph viz. Histogram, box plot, stem-leaf, frequency polygon, scatter diagram, pie chart.	Hours. 9	Marks. 15
<b>Unit 2:</b> Descriptive statistics procedure: frequencies, descriptive, explore, cross tabulation. Correlation and lines of regression.	Hours. 9	Marks. 15
<b>Unit 3:</b> Hypothesis testing for means: One sample t-test, Independence sample and pair sample t- test, ANOVA-One way analysis of variance with post hoc analysis, two way analysis of variance.	Hours. 12	Marks. 20

**PRACTICAL:**

Practicals on unit -1, 2 and 3.	Hours. 30	Marks. 25
---------------------------------	-----------	-----------

**Suggested Readings:**

1. Aldrish JO, Cunningham JB (2016) Using IBM SPSS Statistics, Second edition. Sage Publication, New delhi.
2. Mohan R (2016) Using SPSS in research, Neekamal Publications , New Delhi.
3. Jeremy J. Foster (2001) Data analysis using SPSS for windows. New edition. Versions 8-10. Sage publications. London.

\*\*\*\*\*

## Serial No-80

### Fish And Fisheries

SEC0308003

(By Lunding College)

Distribution of Marks:

1. End semester Examination : Total Marks : 30
2. Sessional Examination : Total Marks : 20
3. Practical : Total Marks : 25

Course Objectives:

- Understand the basics of fishes by enabling students to identify the fishes and their classification.
- Develop interest in aquaculture techniques.
- Identify and manage the diseases of fishes.
- Learn various methods of fish culture techniques.
- Help the students to learn a means of self-employment in fishery resources and income generation.

Course outcomes:

- On successful completion of the course on fish and fisheries, students will be able to enrich their knowledge in identifying fishes and their classification, the knowledge of aquaculture techniques, the diseases of fishes and their identification and management & control measures. This course will help the students to enable their engagement and employment in fishery resources and to learn a means of income generation.

### THEORY

UNIT 1: Introduction & Classification: General description of fish; Account of systematic classification of fishes ( upto classes)	Hours 4	Marks 4
UNIT 2: Morphology and Physiology: Types of fins and their modification; locomotion in fishes; types of scales; gills and gas exchange; buoyancy; osmoregulation in fishes; Parental Care; Migration	Hours 10	Marks 10
UNIT 3: Fisheries: Inland fisheries; marine fisheries; fishing crafts and gears; depletion of fisheries resources.	Hours 4	Marks 4
UNIT 3: Aquaculture: Sustainable aquaculture; Pen & Cage culture; polyculture; composite fish culture, brood stock management; induced breeding of fish; preparation and maintenance of fish aquaculture; fish diseases: bacterial, Viral & parasitic.	Hours 12	Marks 12

**Practical:**

	Hours	Marks
1. Morphometric and meristic characters of fishes.	30	25
2. Study of different types of scales ( through permanent slides/photographs)		
3. Study of <i>Petromyzon</i> , <i>Myxine</i> , <i>Chimaera</i> , <i>Puntius</i> , <i>Channa</i> , <i>Labeo</i> , <i>Heteropneustes</i> , <i>Anabas</i> , <i>Clarius</i> , <i>Garra</i> .		
4. Water quality criteria for Aquaculture: Estimation of pH, Free Carbon-dioxide, dissolved oxygen, conductivity.		
5. Study of breathing organs in <i>Channa</i> , <i>Heteropneustes</i> , <i>Anabas</i> , <i>Clarius</i>		
6. Project report on a visit to any fish farm/ Pisciculture laboratory.		

**Suggested Readings:**

- P. K. Talwar & Jhingran (1991), Inland fishes of India and adjacent countries, Volume 1; Oxford and IBH Publishing Co. Pvt. Ltd.
- K. C. Jayaram, The freshwater fishes of Indian Region, 2<sup>nd</sup> Edition, Narendra Publishing House.
- S. S. Khanna and H. R. Singh, A text book of fish biology and fisheries, Narendra Publishing House.
- C. B. L. Srivastava, Fish Biology, Narendra Publishing House.
- Q. Bone and R. Moore, Biology of fishes, Taylor and Francis Group, CRC Press, U.K.

# Serial No-81

## Education

SEC0308103

(By Nabajyoti College)

### SYLLABUS

Skill Enhancement Course (SEC)

FYUGP 3<sup>rd</sup> Semester

Subject: EDUCATION (Credit 3: Marks: 75)

#### Distribution of marks

1. End Semester Examination-Total Marks	: 30
2. Sessional Marks	: 20
3. Practical	: 25

#### Learning Objectives:

- # Understanding the basic concepts of life skills
- # Identifying the major life skills
- # Practicing the core life skills
- # Developing appropriate values for skill education

#### Learning outcomes:

On successful completion of the course, student will be able to-

- \*identify the core life skills
- \*realize the needs of skill education
- \*perform tasks skillfully
- \* adapt with new situation
- \* solve problems effectively

#### Unit 1

### Unit 1

- \*Introduction to life skills
  - \*Meaning and concept of Life skill Education
  - \*Objective of Life Skill Education
  - \* Importance of Life Skill Education
- 

### Unit 2

Core Life Skills enlisted by WHO

- i. Problem solving skills
- ii. Decision making skills
- iii. Creative thinking skills
- iv. Critical thinking skills
- v. Communication skills
- vi. Interpersonal skills
- v. Communication skills
- vi. Interpersonal skills
- vii. Empathy
- viii. Self awareness
- ix. Coping with emotion
- x. Coping stress

### Unit 3.a ( for those who don't offer practical)

Different methods of teaching life skills-

\*project, Demonstration, Observation, Experiment, Integration method

\*Role of teacher in life skill education.

### Unit 3.b (practical)

1. Presentation of public speech
2. Preparation of survey report
3. Conduct of group projects
4. Demonstration of writing skills
5. Book/chapter review

4.  
20/08/24  
HOD. Edu.  
→

**Serial No-82**

**Youth and Nation Building**

**SEC0308203**

**(By R.G.M. College)**

**NAME OF THE BOOK: YOUTH AND NATION BUILDING**

The book will definitely be informative and the learners will achieve knowledge on NSS, NCC & Disaster Management. All these are much important in so far as the challenges towards our nation are concerned. The selected topics will encourage our next generation to involve and to get inspiration of nation building through dedicated aims and objectives of these organizations.

**UNIT-I: Youth and National Service Scheme (NSS)**

**NSS- origin, Organisation and objectives**

**NSS-Activities and benefits**

**NSS and its contribution towards nation building**

**UNIT-II: Youth and National Cadet Corps (NCC)**

**Aims and objectives of NCC**

**Organisation and Training**

**NCC and its benefits**

**UNIT-III: Youth and National Disaster Management**

**Disaster Management Plan 2016: an overview**

**National Disaster Management Authority**

**Community involvement and preparedness in Assam**

\* \* \*

**❖ Reference Books:**

1. NSS and Youth Development Paperback – 1 January 2021 by Dr. Sunita Agarwalla, Mahaveer Publications, New Delhi
2. National Service Scheme- A Youth Volunteer Programme (for Under Graduate Students as per UGC Guidelines), by JDS Panwar, Amit Kumar Jain & Brijesh Kumar Rathi, Daya Publishing House (A Division of Astral International Pvt. Ltd.) Delhi in 2016.



3. Role of National Service Scheme Volunteers in Nation Building Development- Dr. M. P. Pagar, NSS Programme Officer, L.V.H.Collage, Panchavati, Nashik-422 003, Affiliated to S.P.P.University, Pune ; e-mail:-pagarmp@gmail.com
4. NATIONAL SERVICE SCHEME MANUAL (REVISED) 2006, Government of India Ministry of Youth Affairs & Sports New Delhi.
5. NCC: Handbook of NCC Cadets for 'A', 'B' and 'C' Certificate Examinations Paperback – 22 April 2022, by R.K. Gupta (Author)
6. NCC Army Wing (Covers Both Common & Special Subjects) Paperback – 1 April 2023, by RPH Editorial Board (Author)
7. R. Gupta' s NCC ( National Cadet Corps ) A concise Handbook of NCC Cadets for ' A', 'B' & 'C' Certificate Examinations [Including Model Papers & Solved Questions ] 2022 edition Paperback – 1 January 2022, by R.K. Gupta (Author, Editor)
8. NCC Directorate; Bhubaneswar; Cadet's Hand Book Common Subject All Wings (for JD/JW AND SD/SW)
9. Disaster Management in India: Evolution of Institutional Arrangement & Operational Strategies by Mohan Kanda
10. Disaster Management and Preparedness : Based on the Syllabus Prescribed by UGC for Disaster Management Education [Paperback] Dhawan Paperback – 1 January 2012 by NIDHI GAUBA
11. Disaster Management in India: Challenges and Strategies (English, Hardcover, Dr. R. K. Dave)
12. Disaster Management in India: Perspective, issues and Strategies by Nishith Rai and A.K.Singh, ISBN : 978-81-89267-46-9, New Royal Book Company, Lucknow.

O O O

**Serial No-82**  
**Youth and Nation Building**  
**SEC0308203**  
**(By Nabajyoti College)**

Syllabus for B.A. 3<sup>rd</sup> Semester (Skill Enhancement Course)

B.A. 3<sup>rd</sup> Semester (FYUGP-NEP)

Paper: POL-SE-3014

Youth and Nation-Building

(Credits: 3, Marks: 75)

**Distribution of Marks-**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical/Project/Assignment: Total Marks: 25
  - > Theory Credit: 02
  - > Practical/Assignment Credit: 01
  - > No. of Required Classes: 45

**Particulars of Course Designer:**

1. Dr. Dhruvajyoti Das, Assistant Professor, Department of Political Science, Nabajyoti College, Kalgachia.
2. Debutpal Bora, Assistant Professor, Department of Political Science, Nabajyoti College, Kalgachia.

**Learning Objectives:**

- Understand the importance of NCC and NSS among the youth basically the College students in Nation-Building
- Develop interest about NCC and NSS activities among the students.
- Encourage the students to get involved with the NCC and NSS and learn about its activities and undertake tasks under the aegis.
- Understand and learn about the basics of disaster preparedness and its management.

**Learning Outcomes:**

**Learning Objectives:**

- Understand the importance of NCC and NSS among the youth basically the College students in Nation-Building
- Develop interest about NCC and NSS activities among the students.
- Encourage the students to get involved with the NCC and NSS and learn about its activities and undertake tasks under the aegis.
- Understand and learn about the basics of disaster preparedness and its management.

**Learning Outcomes:**

- To enable the students to learn the importance of NCC and NSS.
- To make students understand the activities related to NCC and NSS
- To make students learn the basics of National Disaster management and its importance.

**Syllabus for B.A. 3<sup>rd</sup> Semester (FYUGP-NEP)**

*(Skill Enhancement Course-SEC)*

**Paper: POL-SE-- Youth and Nation-Building**

**(1 Credit- 15 Hours Contact Classes)**

**Unit-I: Youth and National Service Scheme (NSS) (15 Hours/25 Marks)**

- NSS: Organisation and Objectives
- NSS: Activities and Benefits
- NSS and its contribution

**Unit-II: Youth and the National Cadet Corps (NCC) (15 Hours/25 Marks)**

- Aims and objectives of the NCC
- Organisation and Training
- NCC and its benefits

**Unit-III: Youth and National Disaster Management (15 Hours/25 Marks)**

- Disaster Management Plan 2016-an overview
- National Disaster Management Authority
- Community involvement and preparedness: India

**Reading List:**

**Unit-I:**

- NATIONAL SERVICE SCHEME MANUAL (REVISED), available at

<https://nss.gov.in/sites/default/files/manualNss2006.pdf>

**Unit-II:**

- ANO Handbook, NCC, Available at

[https://ncc.du.ac.in/downloads/ANO%20Hand%20Book\\_1.pdf](https://ncc.du.ac.in/downloads/ANO%20Hand%20Book_1.pdf)

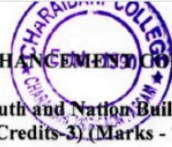
**Unit-III:**

- National Policy on Disaster Management, available at [https://nidm.gov.in/PDF/policies/ndm\\_policy2009.pdf](https://nidm.gov.in/PDF/policies/ndm_policy2009.pdf)
- National Disaster Management Plan
- Assam State Disaster Management Authority, <https://www.asdma.gov.in/ini2.html>
- Disaster Management Act, 2005, Government of India, Ministry of Home Affairs, Approved by the Union Cabinet on 23<sup>rd</sup> December, 2005.
- Handbook of National Policy on Disaster Management, 2009, Government of India, Ministry of Home Affairs, Approved by the Union Cabinet on 22<sup>nd</sup> October, 2009.

\*\*\*\*\*

*Handwritten signature and date:*  
20/08/2024  
HOD  
P. V. K. S. S.

**Serial No-82**  
**Youth and Nation Building**  
**SEC0308203**  
**(By Charaibahi College)**



**SKILL ENHANCEMENT COURSE (SEC)**

**“Youth and Nation Building”**  
**(Credits-3) (Marks - 75)**

**Distribution of Marks:**

1. End semester Examination: Total Marks = 30
2. Sessional Examination: Total Marks = 20
3. Practical (Project) Total Marks = 25

Theory credit: 02

Practical credit: 01

**No of required classes:** 30 hrs. (Theory + 30 hrs Practical ....)

No of Non-Contact classes: 00

Particulars of Course designer: Charaibahi College, Charaibahi, Morigaon (Assam)  
Under Gauhati University

**Learning objective:**

The aim of This Course is to highlight the Importance of NCC and NSS. The Students will be able to get involved with the NCC and the NSS and learn about- it's active and undertake tasks under its aegis. The student will able to learn about the basics of disaster Preparedness and its Management

**Learning Outcome:**

1. To enable student to learn the importance of Youth in NSS ad NCC.
2. To make students, understand the activities related to NSS and NCC and its importance.
3. To make students learn the basics of National Disaster Management and its

2. To make students understand the activities related to NSS and NCC and its importance.
3. To make students learn the basics of National Disaster Management and its Importance.

**Theory:** (There should be minimum 01 Unit for Cash Theory Credit)

**Unit I :** Youth and National Service Scheme NSS (10 lectures)

- a) NSS : Organisation & objectives.
- b) NSS : activities & benefits
- c) NSS : NSS and its contribution.

**Unit II :** Youth and National cadit crops (NCC) (10 lectures)

- a) Aim & objectives the NCC
- b) Organisation & Training.
- c) NCC & its benefits

**Unit III:** Youth and National Disaster Management (10 lectures)

- a) Disaster Management plan 2016 an overview.
- b) National Disaster Management Authority.
- c) Community involvement & preparecders : Assam

Modalities for Practical component: Project Report/Field Study Report based on any activities i.e. awareness programme/campaign, group discussion, disaster  
c) Community involvement & preparecders : Assam

Modalities for Practical component: Project Report/Field Study Report based on any activities i.e. awareness programme/campaign, group discussion, disaster Management programme in collaboration with NCC and NSS unit etc.

**Suggested Readings:**

**1) Unit I**

National Service Scheme Manual (Revised) available at [https://nss.wbat.ac.in/documents/NSS\\_Mannual\\_2006.Pdf](https://nss.wbat.ac.in/documents/NSS_Mannual_2006.Pdf).

**2) Unit II**

ANO Handbook, NCC, available at <https://docs.google.com/vieworag/viewer?>  
= <http://nccindia.nic.in/sites/default/Files/ANO+Hand+Book.Pdf>.

**3) Unit III**

National Policy on Disaster Management available at <https://ndma.gov.in/Images/guidelines/national-dm-Policy2009.Pdf>  
National Disaster Management Plan  
Assam State Disaster Management Authority, <http://sdmassam.nic.in/iniz.html>.

*M. K. Das*  
20/8/24  
HOD

for D.D.S HOD  
Department of Political Science  
Charaibahi College

*M. S. Das*  
20/8/24  
Principal  
Charaibahi College  
Principal  
Charaibahi College

\*\*\*\*\*

**Serial No-83**  
**Microbial Tools and techniques**  
**SEC0308303**  
**(By Darang College)**

1. End Semester Examination: Total Marks: 30
  2. Sessional Examination: Total Marks: 20
  3. Practical: Total Marks: 25
- 
- |                          |                                |  |
|--------------------------|--------------------------------|--|
| <input type="checkbox"/> | Theory Credit                  | 02                                       |
| <input type="checkbox"/> | Practical Credit               | 01                                       |
| <input type="checkbox"/> | No. of Required Classes        | 30 hours (Theory) + 30 hours (Practical) |
| <input type="checkbox"/> | No. of Non-Contact Classes     | 00 ( you may have)                       |
| <input type="checkbox"/> | Particulars of Course Designer | Department of Botany, Gauhati University |

Learning objectives:

- **Students will gain knowledge about the different microorganisms and their habitats.**
- **Students will study the *in vitro* culture techniques of microbes as well as different instrumentation techniques involved in microbiology.**
- **Students will learn about the antibiotic resistance of microorganisms**

Learning outcomes:

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

- Apply the knowledge to understand the microbial physiology and to identify the microorganisms.
- Understand the microbial techniques and methods used to culture of microorganisms which is important for microbial product synthesis.

THEORY (There should be minimum 1 unit for each theory credit) -

<b>Unit 1: Introduction to the Microbial World</b> a. Distribution of microorganisms in nature, diversity in microbial habitat. Types of microorganisms, b. Impact of microorganisms in environment and its impact on human life.	Hours:10	Marks:10
<b>Unit 2: Laboratory tools and techniques in Microbiology</b> a. Study of instruments- Light microscope, Autoclave, Hot air oven, Shaking Incubator, BOD incubator, pH meter, Spectrophotometer, Centrifuge. Colony Counter, Biosafety Cabinet b. Microbial Staining- i. Dyes and stains: Definition, acidic and basic dyes ii. Smear: Fixation, use of mordent, intensifiers and decolorizer. iii. Mechanism of staining. Types of staining: simple and differential staining	Hours:10	Marks:10
<b>Unit 3: Nutrient media and Culture of microorganisms</b> a) Different culture media, their use and significance b) Pure culture techniques: Principles and methods of obtaining pure culture. Preservation techniques of pure cultures	Hours:10	Marks:10

**PRACTICAL** -

1. Sterilization technique 2. Disposal of laboratory waste and cultures 3. Staining of bacteria - Gram staining 4. Preparation of different types of microbial media 5. pH adjustment of media by use of pH strip and pH meter 6. Culture methods of bacteria and preparation of stab/slants/glycerol stocks 7. Study of antibiotic resistance in microorganism	Hours:30	Marks:25
---	----------	----------

Suggested Readings

- a. **Microbiology by N.J. Pelczar, Jr. E.C.S. Chan and N.R. Krieg; Mac Graw Hill Book Company.**
- b. **.General Microbiology by R.Y.Stanier, M. Doudoroff and E.A. Adelberg; Mac Millan India.**
- c. **Microbiology by L.M.Prescott, J.P.Harley and D.A.Klein . McGraw Hill.**
- d. **Text Book of Microbiology by R. Ananthanarayan and C.K. Joyaram Panikar . Orient Longman, Madras.**
- e. **Microbiology: An Introduction – G.J.Tortora, B.R.Funke and C.L.Case. Pearson Education**
- f. **Bergey's manual of Systematic Bacteriology, 2nd Edition.**
- g. **Bergey's manual of Determinitive Bacteriology, 9th Edition.**



## Serial No-84

### English for Competitive Exams

SEC0308403

(By Mangaldai College)

#### Distribution of Marks:

1. EndSemesterExamination:  
TotalMarks: 30
2. SessionalExamination:  
TotalMarks: 20
3. Practical: TotalMarks: 25
  - TheoryCredit: 02
  - Practical Credit: 01
  - No.ofRequiredClasses: 30hours (Theory)+ 30 hours (Practical)
  - ParticularsofCourseDesigner:**DepartmentofEnglish,Mangaldai College**

#### Learning Objectives:

- ❖ To familiarize the students with the syllabus and pattern of Englishfor competitive exams.
- ❖ To discuss writing techniques of English required to crack competitive examinations
- ❖ To inculcate practical skills among students which would benefit them for employment.
- ❖ To prepare them for a competitive job market.
- ❖ To hone their grammar, comprehension, and vocabulary skills.

#### Learning Outcomes

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

- ❖ Explore versatile career opportunities.
- ❖ Make themselves better prepared for a competitive job market.
- ❖ Gain confidence in their future competitive endeavours.
- ❖ Recognize the basic structures in spoken discourse

#### Theory: 50 Marks

Topics	Hours	Marks
<b><u>Unit I: Basic language skills</u></b>	10	15
<ul style="list-style-type: none"><li>• Error Correction and Sentence Rearrangement</li><li>• Types of sentences:</li></ul>		

Positive/Negative/Interrogative/Simple, Complex and Compound) <ul style="list-style-type: none"> <li>• Clauses (Noun Clauses – Adjective Clauses; Adverbial Clauses)</li> <li>• Phrases (Noun phrases; verb phrases; adverbial phrases)</li> </ul>		
<b><u>Unit II: Grammar</u></b>  <ul style="list-style-type: none"> <li>• Synonyms/Antonyms</li> <li>• One-word substitutes</li> <li>• Idioms and Phrases</li> <li>• Proposition</li> <li>• Tense</li> <li>• Voice</li> </ul>	05	10
<b><u>Unit III: Composition</u></b>  <ul style="list-style-type: none"> <li>• Filing Right to Information (RTI) applications</li> <li>• Essay Writing</li> <li>• Business Letters</li> <li>• Report Writing</li> </ul>	10	15
<b><u>Unit IV: Communication</u></b>  <ul style="list-style-type: none"> <li>• Interview skills</li> <li>• Email Writing</li> <li>• Blogging: fashion, travel, food</li> </ul>	05	10

**Practical: 25 Marks**

Topics	Hours	Marks
1. Group Discussion 2. Solving previous question papers of SSC/governmental exams 3. Vocabulary and language games 4. Story Writing 5. Mock Interviews	30	25

**Suggested Readings**

- Gupta SC (2017) English Grammar & Composition Very Useful for All Competitive Examinations. Arihant. New Delhi
- Bakshi SP (2017) Objective General English. Arihant. New Delhi
- Sachdeva Taniya (2021) English Grammar and Composition Book for Competitive & Other Exams. Prabhat Prakashan. India
- Arora, Mrinalini Anand (2020) Essential English for Competitive Exams. Source Books. India

**Serial No-85**  
**Microbiological Analysis of Air and Water**  
**SEC0308503**  
**(By Darang College)**

**Credit-3 (2T+1P)**

**(33 lectures)**

**Course learning outcomes:** This course will help the students to develop good understanding of microbes present in air and water using microbiological skills within laminar air flow hood. Students will be practically involved in microbial sample collection, preparation of growth media, proper handling of microscope for morphological characterization, skills in microbial staining processes, and techniques in cell counting using Neubauer chamber.

**UNIT-I**

**(10 Lectures)**

Introduction to microbiological air and water sampling, air and waterborne diseases, bio-aerosols, Air and water borne microorganisms (bacteria, viruses, fungi), and their growth environment, impact on human health, significance in food and pharma industries.

**UNIT-II**

**(11 Lectures)**

Aeromicrobiology, air sample collection and analysis: bio-aerosol sampling, air samplers, methods of microbial analysis of air, CFU, culture media for bacteria and fungi, Molecular and morphological identification characteristics of bacteria and fungi. Control measures to prevent microbial contamination of air.

**UNIT-III**

**(12 Lectures)**

Microbiological analysis of water: Sample collection, treatment and safety of drinking (potable) water, methods for potability of water samples: standard qualitative procedure- presumptive (ATP-test/MPN test), confirmed, and completed tests for fecal coliforms. Control measures to prevent microbial contamination of water.

**Practicals:**

1. Isolation of air borne microorganisms (bacteria & fungi)
2. Enumeration of air/water microflora using Neubauer chamber.

3. Collection and morphological identification of microbes from sewage.
4. Demonstration of potability of water using presumptive/MPN test.

**Suggested readings:**

1. Willey, J., Sandman, K., and Wood, D. 2019, *Prescott's Microbiology*, 11<sup>th</sup> edition, McGraw-Hill publication, New York.
2. Pelczar, M.J., Chan, E.C.S., and Krieg, N.R. *Microbiology*, 5<sup>th</sup> edition, McGraw-Hill publication, New York.
3. Cappuccino, J.G. and Sherman, N. 2017, *Microbiology: A Laboratory Manual*, 11<sup>th</sup> edition, Pearson Education, UK.

Designed by Minakshee Sarmah & Dr. Manika D Kataki  
Dept. of Biotechnology, Darrang college, Tezpur, Assam

## Serial No-86

### Driving & Road Safety ( Traffic Rules & Regulations )

SEC0308603

(By Swahid Smriti College)

#### Distribution of Marks :

1. End Semester Examination : Total Marks – 30
2. Sessional Examination -- 20
3. Practical -- 25

Theory Credit : 02

Practical Credit : 01

#### Learning Objective:

The course enables students to know how to drive maintain all the Road Safety Rules. It provides insights into the developing road safety measures. This paper seeks to equip the students with the skill of driving and making them knowledgeable on Road Safety Rules and Regulations.

1. To acquire knowledge and skill of driving.
2. To import knowledge and understanding of Road Safety.
3. To create awareness about rules and regulations of traffic.

#### Course Outcomes:

On successful completion of the course, the students will be able to gain knowledge on

.....

1. The skill of driving
2. Road Safety ( Rules & Regulations its Implementation )
3. Traffic Rules ( Signals with Meaning )
4. Safety Measures of Road Accidents.

#### Unit - I ( Hours – 6) Marks – 6

##### Introduction to Driving Skill :

Safe and responsible driving – Different steps before and during driving ; Physical and mental alertness ; Know your vehicle ; Sitting position ; Fasten your Seat Belt ; Use of accelerator, Break, Steering etc. ; Use of Headlights and Signal Lights.

#### Unit - I I ( Hours - 6) Marks – 7

##### Introduction to Road Safety :

Definition ; Road safety and its importance ; Road traffic accidents scenario in India and in world; Causes and characteristics of accidents; Role of Government, Public Sector, community and Media ; Preventive measures of Road accidents ; Use of Safety Devices.

#### Unit - III (Hours - 6) Marks – 5

##### Planning for Road Safety:

Awareness about rules and regulations of traffic ; Side-walks; Central Dividers ; Foot-path ; and Central Railings ; Storage lanes ; Bus Bays; Bicycle lanes; Off-street loading-unloading facilities ; Speed control ; Parking control ; Assisting traffic control authorities ; Provision for disabled.

**Unit - IV ( Hours - 6 )                      Marks – 6**

**Road Signs:**

Arm Signals; Traffic Signs : Mandatory/Regulatory Signs, Cautionary Signs, Information Signs.

**Unit - V (Hours - 6)                      Marks – 6**

**Safety Measures of Road Accident:**

People responsible for accidents prevention ; 4 E's of Accident Prevention – 1. Engineering – by altering the environment . 2. Enforcement – imposing laws, 3. Encouragement - by the use of publicity campaigns . 4. Education – by gaining and using knowledge.

**Practical: ( 30 hours)                      25 Marks**

- Assignment.
- Field Work.
- Project Work.

**Suggested Readings:**

- Naresh Raghavan and Malcolm Wolfe : Car Driving School Manual For India: Notion Press ,2019
- S.S.Randhawa 2016 : Road Safety and Traffic Rules.
- Ministry of Road Transport & Highways, Government of India. 5<sup>th</sup> Edition, 2015 : Traffic Signs Ensure Safety : Books on Road Safety signage & Signs.
- Simon Cohen and George Yannis, Traffic Management, John Willy & Sons, 2016.
- Pradip Kumar Sarkar and Amit Kumar Jain , Intelligent Transport Systems , PHI Learning Private Limited,2017

**Reference Books :**

1. Indian Roads Congress ,Highway Safety Code ,IRC: SP-44: 1996-4
2. Indian Road Congress ,Road Safety Audit Manual : IRC: SP-88-20

Serial No-87

Anubad Aaru Anubador Prayog

SEC0308703

(By LOKD College)

Rajib D.  
৪৮৮  
১৩/৪/২০২৫

Gauhati University  
Semester III

অনুবাদ আৰু অনুবাদৰ প্ৰয়োগ

*Skill Enhancement Course (SEC)*

Credits: 3 (Marks: 75)

1. End Semester Examination: Total Marks:30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
- No. of Non-Contact Classes 00
- Particulars of Course Designer: Department of Assamese, **Lokanayak Omco Kumar Das College**

**Learning objectives:**

- ❖ অনুবাদৰ প্ৰাথমিক জ্ঞান আহৰণ।
- ❖ সাহিত্যৰ অনুবাদ আৰু সাহিত্য ভিন্ন পাঠৰ অনুবাদ প্ৰক্ৰিয়াৰ বিষয়ে অৱগতকৰণ।
- ❖ হাতেকামে অনুবাদৰ শিকন।

**Learning outcomes:**

এই পাঠ্য বিষয় অধ্যয়নৰ অন্তত ছাত্ৰ ছাত্ৰীয়ে



**Learning outcomes:**

এই পাঠ্য বিষয় অধ্যয়নৰ অন্তত ছাত্ৰ ছাত্ৰীয়ে

- ❖ অনুবাদৰ সূত্ৰ আৰু ইয়াৰ প্ৰকাৰ সম্পৰ্কে অৱগত হ'ব।
- ❖ অসমীয়া অনুবাদৰ বাৰহাবিক জ্ঞান আয়ত্ত কৰাৰ লগতে কৰ্মক্ষেত্ৰত অনুবাদৰ দক্ষতা আহৰণ কৰিব পাৰিব।
- ❖ ইংৰাজী, হিন্দী আৰু বাংলা ভাষাৰ পৰা নিৰ্দিষ্ট বিষয়ৰ পাঠ অনুবাদ কৰিবলৈ সক্ষম হ'ব।

**THEORY:**

গোট (UNIT)	বিষয় (Topic)	Hours	Marks
১ম গোট	<b>অনুবাদ</b> অনুবাদৰ সংজ্ঞা, অনুবাদৰ বিভিন্ন অভিধা, অনুবাদৰ ইতিহাস, অনুবাদৰ সমস্যা, অনুবাদৰ গুৰুত্ব আৰু প্ৰাসংগিকতা	10	20
২য় গোট	<b>অনুবাদৰ প্ৰয়োগ</b> ক) সাহিত্যৰ অনুবাদ : ( কবিতা, চুটিগল্প, উপন্যাস, নাটকৰ অনুবাদ)	10	15

	খ) সাহিত্য ভিন্ন পাঠৰ অনুবাদ ( বাতৰি আৰু বিজ্ঞাপনৰ অনুবাদ)		
৩য় গোট	<b>অনুবাদ আৰু নিযুক্তি</b>	10	15
৩য় গোট	<b>অনুবাদ আৰু নিযুক্তি</b> অনুবাদক, সাংবাদিক, সম্পাদক, সংবাদ-অনুবাদক, ব্যাখ্যাকাৰা।	10	15

**PRACTICAL:**

বিষয় (Topic)	Hours	Marks
ইংৰাজী, হিন্দী আৰু বাংলাৰ পৰা অসমীয়ালৈ অনুবাদ ছাত্ৰ ছাত্ৰী সকলে ইংৰাজী হিন্দী আৰু বাংলা ভাষাৰ সাহিত্য আৰু সাহিত্য ভিন্ন পাঠৰ অনুবাদ কৰি অনুদিত পাঠ জমা দিব লাগিব।	30	25

**সহায়ক গ্ৰন্থপঞ্জী**

কটকী, প্ৰফুল্ল (২০১২); *তুলনামূলক সাহিত্য আৰু অনুবাদ বিচাৰ*, জ্যোতিপ্ৰকাশন, পানবজাৰ, গুৱাহাটী।

বেজবৰা, নীৰাজনা মহন্ত (২০১১); *অনুবাদ: তত্ত্ব আৰু প্ৰয়োগ*, বনলতা, ডিব্ৰুগড়।

দাস, বমাকান্ত (২০২০); *অনুবাদ তত্ত্ব ও গণজ্ঞাপন বিদ্যা*, এচিয়ান পাব্লিকেশ্যন হাউচ, কলকাতা।

শৰ্মা, মদন (২০১৯); *অনুবাদ অধ্যয়ন তত্ত্ব আৰু প্ৰয়োগ*, বান্ধৱ, পানবজাৰ, গুৱাহাটী।

সন্দিকৈ, কৃষ্ণকান্ত; *অনুবাদৰ কথা*, (চেতনা, ২য় বছৰ, ৫ম সংখ্যা)।

**Serial No-88**

**Bengali DTP and Proof Reading**

**SEC0308803**

**(By LOKD College)**

১৯/১১/২০২০  
৪৫৭

**GAUHATI UNIVERSITY**  
Semester III  
FYUGP Skill Enhancement Course (SEC)  
**Bengali DTP and Proof-reading**

Credit : 3  
Marks : 75

**Distribution of Marks :**

1. End Semester Examination	:	Total Marks : 30
2. Sessional Examination	:	Total Marks : 20
3. Practical : Total Marks	:	25
Theory Credit	:	02 (30 hours class)
Practical Credit	:	01 (30 hours class)
Non-Contact Class	:	NIL
Particulars of Course Designer	:	Department of Bengali, Lokanayak Omeo Kumar Das College, Dhekiajuli

**Course Description :** The Course on Bengali DTP and Proof-reading offers the students an avenue to be familiar with the theoretical knowledge and practical skills of Bengali DTP and Proof-reading. They will be introduced to different typing-software required for DTP works in Bengali. They will also be acquainted with the knowhow as well as the ins and outs of Proof-reading.

**Course Objectives :**

- ♦ To make the students familiar with the knowledge and skills of computer programmes.
- ♦ To acquaint the students with computer softwares required for Bengali typing such as *Ramdhenu* and *Abhra*.
- ♦ To familiarize the students with sound knowledge of Proof-reading so that he or she may become an able proof-reader.

**Course Outcomes :**

- ♦ To obtain a basic understanding of different typing-softwares.
- ♦ To be acquainted with different typino-foonts of Bengali

**Course Outcomes :**

- ♦ To obtain a basic understanding of different typing-softwares.
- ♦ To be acquainted with different typing-fonts of Bengali.
- ♦ To achieve proficiency in Bengali typing and layout designs.
- ♦ To be eligible for career options in print and electronic media as well as publication houses.
- ♦ To be eligible to choose career as a freelance Proof-reader of web content, e books and PDFs, Blog portal contents etc.

**Theory :**

Unit Structure	বিষয় (Topics)	Hours	Marks
Unit I	কম্পিউটার ও ইন্টারনেট সম্পর্কে প্রাথমিক ধারণা। মাইক্রোসফট ওয়ার্ড ও পেজমেকার-এর ব্যবহার।	6	14
Unit II	বাংলা রামধেনু সফটওয়্যার-এর ব্যবহার। বিভিন্ন ধরনের ফন্ট, বিশেষ করে গীতাজলির ব্যবহার।	8	12
Unit III	বাংলা বানানবিধি সম্পর্কে সাধারণ আলোচনা।	8	12
Unit IV	প্রম্ফ সংশোধন : প্রম্ফ সম্পর্কে সাধারণ ধারণা। প্রম্ফ সংশোধনের রীতি ও ব্যবহারিক প্রয়োগ।	8	12

Page 1 of 2

**Practical :**

বিষয় (Topics)	Hours	Marks
রামধেনু ও অত্র সফটওয়্যার ব্যবহারের মাধ্যমে বাংলা টাইপিং শিক্ষা। কাগজে-কলমে এবং কম্পিউটারের মাধ্যমে প্রম্ফ সংশোধন শিক্ষা।	30	25

**Text Books :**

কম্পিউটার এবং ইন্টারনেট টিপস : মো. আনিসুর রহমান, তাজলিপি, ঢাকা, বাংলাদেশ।

**Practical :**

বিষয় (Topics)	Hours	Marks
রামধেনু ও অত্র সফটওয়্যার ব্যবহারের মাধ্যমে বাংলা টাইপিং শিক্ষা। কাগজে-কলমে এবং কম্পিউটারের মাধ্যমে প্রম্ফ সংশোধন শিক্ষা।	30	25

**Text Books :**

১. কম্পিউটার এবং ইন্টারনেট টিপস : মো. আনিসুর রহমান, তাজলিপি, ঢাকা, বাংলাদেশ।
২. পাণ্ডুলিপি থেকে প্রম্ফ সংশোধন : জ্যোতির্ময় সেনগুপ্ত, সপ্তর্ষি প্রকাশন, কলকাতা-৯

**Suggested Reading :**

১. তিস্ত ক্ষণকাল : সুভাষ ভট্টাচার্য (আনন্দ পাবলিশার্স, কলকাতা)
২. বাংলা কী লিখবেন, কেন লিখবেন : নীরেপ্রনাথ চক্রবর্তী (আনন্দ পাবলিশার্স, কলকাতা)
৩. লেখক ও সম্পাদকের অভিধান : সুভাষ ভট্টাচার্য (আনন্দ পাবলিশার্স, কলকাতা)
৪. বানান অভিধান : পশ্চিমবঙ্গ বাংলা অকাদেমি
৫. প্রম্ফ-রীডার (প্রথম পর্ব) : মুগাল গুহঠাকুরতা (পূর্ণ প্রকাশ)
৬. বাংলা বালো : পবিত্র সরকার (দে'জ প্রকাশনী, কলকাতা)
৭. চমকিত ব্যাকরণ ও বাংলা বানান : পবিত্র সরকার (পুনশ্চ, কলকাতা)
৮. The Importance of Proof-reading : John Wilson

Prepared by  
Department of Bengali  
Lokanayak Omeo Kumar Das College  
Dhekiauli : Sonitpur ( Assam)

**Serial No-90**

**Rural Economy**

**SEC0309003**

**(By LOKD College)**

Rm 20/12/20

**Skill Enhancement Course(SEC)**

**Title: Rural Economy**

**Credits:3(Marks:75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks : 30
2. Sessional Examination: Total Marks : 20
3. Practical: Total Marks : 25
  - Theory Credit :02
  - Practical Credit :01
  - No. of Required Classes : 30 hours (Theory) + 30 hours (Practical)
  - Particulars of Course Designer :Department of Economics,  
Lokanayak Omeo Kumar Das College

**Learning Objectives:**

- ❖ To teach the rural economy and its development.
- ❖ To create awareness among the students regarding the rural economy
- ❖ To study the concepts of rural poverty and unemployment and its relief measures
  - ❖ To study the concepts of rural poverty and unemployment and its relief measures.
  - ❖ To ensure awareness among the students about NGO's.

**Learning Outcomes:**

- ❖ By learning this subject students will have thorough knowledge of rural economy.
- ❖ Learn the way of self-employment and income generation.

**THEORY**

Unit:1	Hours:10	Marks:10
Concept and Nature of Rural Economy; characteristics of rural Economy; Factors affecting rural Economy.		

Unit:2 Role of Agriculture in Rural Development- Pattern of Agricultural Holding-Strategy of Agricultural development and Green Revolution- Problems of Agricultural Labourers and Artisans in the Rural Economy- Measures to solve their problems.	Hours:10	Marks:10
Unit:3 Role and functions of NGOs in rural development, Empowerment of rural women, Community participation specially women participation for rural economy development	Hours:10	Marks:10

### PRACTICAL

Rural development schemes and programs, NGOs and Self Help Groups	Marks:25	Hours:30
---	----------	----------

### Suggested Readings:

--	--	--

### Suggested Readings:

- 1.Hussain Tahir, Tahir Mary and Tahir Riya (2020): Fundamentals of Rural Development.
- 2.Chaudhari, C.M.(2009)Rural Economics, Jaipur: Subline Publication.

3.Ruddar Datt and Sundharam K. P. M. (2004): Indian Economy- S. Chand & Co. Ltd.

4. Singh Kantar (2009): Rural Development – Principles, Policies and Management, Sage Publications. New Delhi.

5.Dhar PK(2014),Indian Economy Its Growing Dimensions,Kalyani Publication.

## Serial No-91

### Environment and Literature

SEC0309103

(By LOKD College)

Rupis Anil  
Principal  
LOKD College, Dhekiajuli,  
Sonitpur, Assam

Semester: Four Years Undergraduate Program (FYUGP)  
III Semester SEC

Course Name:- **Environment and Literature**

Credit: 3 Credits

Credit Distribution: (Theory Credit 2, Practical Credit 1)  
LOKD College, Dhekiajuli, Sonitpur, 784110

Department of English

**Skill Enhancement Course**

#### Course Objectives :-

- To make students understand the Umbrella Term Environment with its ethics.
- Spreading environmental awareness among students.
- To initiate students into Eco-criticism as an Environmental Study defining various relationships.
- To provide students insights about remedial issues of environment including the politics.

Learning Outcomes:- Students will be aware of the environmental need, ethics and integrity of it with human world and consequent protection of Environmental Resources as a means to sustainable development of the country.

#### Unit:- 1

- a) Concept of Environmental Ethics.
- b) Eco-criticism and Environment.

#### Unit:- 2

Environmental Issues

- a) Pollution-Variety Types & Sources
- b) Remedial strategies to curb pollution

#### Unit:- 3

Environment and Politics

- a) Ecologism
- b) Eco-feminism

**Unit:- 2** Environmental Issues

- a) Pollution-Variety Types & Sources
- b) Remedial strategies to curb pollution

**Unit:- 3** Environment and Politics

- a) Ecologism
- b) Eco-feminism
- c) Sustainable Development

**Project:-**

TYPE:-Assignment

**Suggested Readings:-**

- Attfield Robin, *Environmental Ethics A Very Short Introduction*, Oxford 2019.
- Baker. Susan, *Sustainable Development*, Routledge, New York, 2006
- Basak, Anindita, *Environmental Studies*, Pearson, 2009
- Carter, Neil, *The Politics of the Environment: Ideas, Activism, Policy*, Cambridge University Press, New York, 2007
- Heywood. Andrew, *Political Ideologies An Introduction*, Red Globe, 2022

- 
- Kaushik. Anubha & Kaushik, C.P. *Perspectives in Environmental Studies*, New Age International
- 

- Kaushik. Anubha & Kaushik, C.P. *Perspectives in Environmental Studies*, New Publishers, 2018
- Raju. Parlpalli, Anand Konkala, Plave. Anil. E, & Kumar Ashok, *Environment Ethics*, AG Publishing House, 2022.
- Shiva Vandana, *Ecofeminism, London*, Zed books, 1984.

**Paner Offered by:**

**Serial No-92**  
**Local Administration**  
**SEC0309203**  
**(By LOKD College)**

*Pravin*  
*19/12/2024*

**Skill Enhancement Course (SEC)**

**Title: Local Administration**

**Credits: 3 (Marks:75)**

**Distribution of Marks**

- |  |      |
|--|------|
| 1. End Semester Examination: Total Marks | : 30 |
| 2. Sessional Examination Total marks     | :20  |
| 3. Practical Total Marks                 | :25  |

- Theory Credit : 2
- Practical Credit :1
- Number of required classes: 30 hours (Theory) + 30 hours (Practical)
- **Particulars of Course designer: Department of Political Science, Lokanayak Omeo Kumar Das College**

**Course Objectives**

1. To understand the meaning and function of local self government
2. To differentiate between the rural and urban local self government
3. To appreciate the role of local self government in human life

**Learning Outcome**

On completion of the course students will be able to –

1. Describe the local self government
2. Learn about peoples participation in local administration
3. Initiate responsibilities to help local bodies



On completion of the course students will be able to –

1. Describe the local self government
2. Learn about peoples participation in local administration
3. Initiate responsibilities to help local bodies
4. Appreciate role played by different local bodies

**Theory**

<b>Unit 1</b> <b>Introduction to local administration</b> <ul style="list-style-type: none"> <li>• Evolution, meaning, nature and significance</li> <li>• Organizational structure of rural and urban local self government of India</li> </ul>	Hour 10	Marks 10
<b>Unit 2</b> <b>Functions , powers and role of various local bodies</b> <ul style="list-style-type: none"> <li>• 73<sup>rd</sup> and 74<sup>th</sup> Constitutional amendments</li> <li>• Panchayati Raj insitutions-Zila Parishad, Panchyat Samiti, Gram Panchyat, Gram sabha</li> </ul>	Hour 10	Marks 10
<b>Unit 3</b> Provisions and initiatives for local bodies	Hour 10	Marks 10

<ul style="list-style-type: none"> <li>• State policies for local bodies (Special reference to Assam)</li> <li>• Objectives of different government schemes</li> </ul>		
--	--	--

**PRACTICAL**

1. Participation of citizens in Local administration	Marks 25	Hours 30
2. Role of women in local administration		
3. Functioning of Government schemes in local administration		

**Suggested Readings**

1. Singh, MK. (2014). Panchyati Raj System in India-Issues and Challenges, Gyanbook Publication.
2. Sharma, MP. (1960). Local self Government in India, Allahabad Kitab Mahal.
3. Srivastava, KK. (2011). Decentralized Governance and Panchyati Raj, Gyanbook Publication
4. Sahu, S & Thakur, B. ( 2023). Evolution of Local Self Government in India, Notion Press.

.....

**Serial No-93**  
**Nursery and Gardening**  
**SEC0309303**  
**(By LOKD College)**

**Semester: Four Year Undergraduate Program (FYUGP)**

**III Semester SEC**

**Course Name: Nursery and Gardening**

**Credits: 3 (Theory -2 Practical -1)**

**Total Marks -75**

**Learning objectives:**

- ❖ Understanding the basic of nursery development and gardening
- ❖ Promoting interest for gardening
- ❖ Providing hands on training on different methods of vegetative propagation of plants
- ❖ Helping students to learn a means of self employment

**Learning outcomes:**

- On successful completion of the course, students will be able to:
- ❖ Nursery different types of gardens
  - ❖ Learn the methods of cultivation of different crop plants and ornamental plants
  - ❖ Learn the way of self employment and income generation

<b>Theory (Total Marks-30) Practical (Total Marks-25) Internal (Total Marks-20)</b>			
Unit No	Unit Content	No of Classes	Marks
<b>Unit 1</b>	Nursery: definition, objectives and scope and building up of infrastructure for nursery, planning and seasonal activities - Planting - direct seeding and transplants.	3	3
<b>Unit 2</b>	Seed: Structure and types - Seed dormancy; causes and methods of breaking dormancy - Seed storage: Seed banks, factors affecting seed viability.	3	4

	methods of breaking dormancy - Seed storage: Seed banks, factors affecting seed viability.	3	4
<b>Unit 3</b>	Vegetative propagation: air-layering, cutting, selection of cutting, collecting season, treatment of cutting, rooting medium and planting of cuttings - Hardening of plants - green house -mist chamber, shed root, shade house and glass house.	7	10
<b>Unit 4</b>	Gardening: definition, objectives and scope - different types of gardening - landscape and home gardening - parks and its components. Gardening operations: soil laying, manuring, watering, management of pests and diseases and harvesting.	7	8
<b>Unit 5</b>	Sowing/raising of seeds and seedlings-Transplanting of seedlings-Study of cultivation of different vegetables: cabbage, brinjal,lady's finger, onion, garlic, tomatoes, and carrots.	5	5

<b>PRACTICAL (Credit-01)</b>			
<b>1</b>	Study of the methods of cutting, Air-layering and grafting.	5	10
<b>2</b>	Study of cultivation methods of different vegetables.	5	07
<b>3</b>	Local field visit to Nursery/Garden/Green house/ shade house/Glass house	-	08

#### Suggested Readings

1. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & IBH Publishing Co., New Delhi.
2. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
3. Agrawal, P.K. 1993, Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.

Paper offered by:  
Department of Botany  
Lokanayak Omco Kumar Das College

BR

## Serial No-94

# Biomolecules and Pesticides Chemistry

SEC0309403

(By LOKD College)

FYUGP- B.Sc 5<sup>th</sup> Semester

### Biomolecules and Pesticides Chemistry

*Course- Skill Enhancement Course*

Total Lectures: 33

Credits: 3 (Theory- 2; Practical- 1)

**Course Objective:** This is a brief and introductory course on pesticides and biomolecules, through which the students will be introduced to various classes of pesticides and biomolecules, their synthesis, applications and possible hazards of their uses.

**Learning Outcome:** Students will be able to describe or explain the different types of pesticides and some important topics related to biomolecules with their structures, applications etc. They will be also able to search an alternate based on natural products in terms of pesticides.

#### THEORY:

**UNIT 1:** Definition of Pesticides, General Introduction to Pesticides( natural and synthetic), Benefits and adverse effects of pesticide, Classification, Mode of Action, Toxicity and Residue Analysis. **(7 Lectures)**

**UNIT 2:** Synthesis and technical manufacture and uses of pesticides- a) Organochlorine (DDT Gammexene) b)Organophosphate( Malathion, Parathion), Carbamates ( Carbofuran, Carbyl); Quinones(ChloraniI), Anilides Alachlor & Butachlor. **(8 Lectures)**

**UNIT 3:** Aerobic and Anaerobic Fermentation, Production of ethanol and citric acid, Vitamin B2, Vitamin B12 and Vitamin C, Structure of DNA (Watson and Crick Model) & RNA, Biological roles of DNA & RNA, Transcription and Translation. **(8 Lectures)**

#### Practical:

**(10 Lectures)**

1. To calculate acidity/alkalinity in a given sample of pesticide formation.
2. Preparation of simple organophosphates, phosphonates and thiophosphates.
3. Preliminary Investigation of Vitamin C, Vitamin B2 & Vitamin B12 in some locally available fruits.

**UNIT 2:** Synthesis and technical manufacture and uses of pesticides- a) Organochlorine (DDT Gammexene) b)Organophosphate( Malathion, Parathion), Carbamates ( Carbofuran, Carbyl); Quinones(ChloraniI), Anilides Alachlor & Butachlor. **(8 Lectures)**

**UNIT 3:** Aerobic and Anaerobic Fermentation, Production of ethanol and citric acid, Vitamin B2, Vitamin B12 and Vitamin C, Structure of DNA (Watson and Crick Model) & RNA, Biological roles of DNA & RNA, Transcription and Translation. **(8 Lectures)**

#### Practical:

**(10 Lectures)**

1. To calculate acidity/alkalinity in a given sample of pesticide formation.
2. Preparation of simple organophosphates, phosphonates and thiophosphates.
3. Preliminary Investigation of Vitamin C, Vitamin B2 & Vitamin B12 in some locally available fruits.

#### Recommended Books:

1. R. Cremin Pesticides, Preparation Mode of Action, John Wiley & Sons, New York-1978.
2. Pesticide Chemistry: G. Matolesy, M. Nadasy, V. Andriska, Elsevier Sc. Publisher, USA, 1998.
3. "**Biomolecules and Pesticides Chemistry**"- Premada Kalita, Saurav Sen, Lokanayak Omco Kumar Das College- Dhekiajuli-2024.

Prepared by: Department of Chemistry  
Lokanayak Omco Kumar Das College, Dhekiajuli,784110

## Serial No-95

### Basic Experimental Skills

SEC0309503

(By LOKD College)

Semester-Third

Paper Name: Basic Experimental Skills

Credits:3(Marks:75)

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical: Total Marks:	25
> Theory Credit	02
> Practical Credit	01
> No. of Required Classes	30 hours (Theory) + 30 hours (Practical)
> No. of Non-Contact Classes	00
> Particulars of Course Designer	Department of Physics, Lokanayak Omeo Kumar Das College, Dhekiajuli

**Learning objectives:**

- To provide a foundational understanding of experimental techniques and skills used in physics and electronics.
- To teach the principles of accurate measurement, error analysis, and data interpretation.
- To explore the theoretical background of experiments in key areas of physics and electronics.
- To prepare students for practical laboratory work and advanced studies in these fields.
- To provide hands-on experience in conducting experiments.
- To teach students how to properly use laboratory equipment and instruments.

**Learning outcomes:**

**Learning outcomes:**

By the end of this course, students will:

1. Understand the theoretical principles behind basic experimental techniques in physics and electronics.
2. Be able to explain the concepts of measurement accuracy, precision, and error analysis.
3. Comprehend the physical and electronic theories that are tested and verified through experiments. Be proficient in using standard laboratory instruments for experiments in physics and electronics.

4. Be equipped to design and interpret experiments in both physics and electronics.
5. Be proficient in using standard laboratory instruments for experiments in physics and electronics.

**THEORY**

<b>Unit I: Introduction to Measurements</b> Definition of measurement, Types of measurements: Direct vs. indirect measurement techniques, SI units, dimensional analysis, and the importance of standardization. Accuracy and precision and sensitivity in physical measurements, Significant figures. Error and uncertainty analysis. Types of errors: Gross error, systematic error, random error and methods to minimize them. Statistical analysis of data (Arithmetic mean, deviation	<b>Hours:</b> 7	<b>Marks:</b> 7
---	-----------------	-----------------

physical measurements, Significant figures. Error and uncertainty analysis. Types of errors: Gross error, systematic error, random error and methods to minimize them. Statistical analysis of data (Arithmetic mean, deviation from mean, average deviation, standard deviation) and curve fitting. Graphical representation of data: Histograms, scatter plots, and error bars, drawing conclusions from experimental data.		
<b>Unit II: Cathode Ray Oscilloscope:</b> Block diagram of basic CRO. Construction of CRT, Electron gun, electrostatic focusing and acceleration (Explanation only– no mathematical treatment). Use of CRO for the measurement of voltage (dc and ac frequency, time period). Introduction to digital oscilloscope, Digital storage Oscilloscope: Block diagram and principle of working, Basic idea on signal generator and block diagram.	<b>Hours:6</b>	<b>Marks:6</b>
<b>Unit III: Transducers &amp; industrial instrumentation (working principle, efficiency, applications)</b> Static and dynamic characteristics of measurement Systems, Transducers and sensors. Characteristics of Transducers. Temperature transducers: RTD, Thermistor, Thermocouples, Linear Position transducer: Strain gauge, Piezoelectric. Inductance change transducer: Linear variable differential transducers.	<b>Hours:5</b>	<b>Marks:5</b>
<b>Unit IV: Electronic Voltmeter:</b> Advantage over conventional multimeter for voltage measurement with respect to input impedance and sensitivity. Principles of voltage, measurement (block diagram only). Specifications of an electronic Voltmeter/ Multimeter and their significance, AC voltmeter.	<b>Hours:5</b>	<b>Marks:5</b>
<b>Unit V: Digital Multimeter:</b> Comparison of analog and digital instruments. Block diagram of digital multimeter, principle of measurement of I, V, C. Accuracy and resolution of measurement.	<b>Hours:4</b>	<b>Marks:4</b>
<b>Unit VI: Impedance Bridges and Q-meter (Lectures 2):</b> Block diagram and working principles of RLC bridge. Qmeter and its working operation.	<b>Hours:3</b>	<b>Marks:3</b>

### **PRACTICAL**

<b>A) The test of lab skills will be of the following test items:</b> <ol style="list-style-type: none"> <li>1. Use of an oscilloscope.</li> <li>2. CRO as a versatile measuring device.</li> <li>3. Circuit tracing of Laboratory electronic equipment .</li> <li>4. Use of Digital multimeter/VTVM for measuring voltages .</li> <li>5. Circuit tracing of Laboratory electronic equipment.</li> <li>6. Use of signal generator.</li> <li>7. Study the use of Piezoelectric sensors.</li> </ol>	<b>Hours:3</b> 0	<b>Marks:</b> 25
<b>B) Lab</b> <ol style="list-style-type: none"> <li>1. To observe the loading effect of a multimeter while measuring voltage across a low resistance and high resistance.</li> <li>2. To measure Q of a coil and its dependence on frequency, using a Q-meter.</li> <li>3. Measurement of voltage, frequency, time period and phase angle using CRO.</li> <li>4. Measurement of rise, fall and delay times using a CRO.</li> <li>5. Measurement of R, L and C using a LCR bridge/ universal bridge.</li> <li>6. Determine output characteristics of a LVDT &amp; measure displacement using LVDT.</li> <li>7. Measurement of Strain using Strain Gauge.</li> <li>8. To study the characteristics of a Thermostat and determine its parameters.</li> <li>9. To measure the change in temperature of ambient using Resistance Temperature Device (RTD).</li> <li>10. To design and study the Sample and Hold Circuit.</li> <li>11. Design and analyze the Clippers and Clampers circuits using junction diode.</li> </ol>		

### Suggested Readings

1. Measurement, Instrumentation and Experiment Design in Physics and Engineering, M. Sayer and A. Mansingh, PHI Learning Pvt. Ltd.
2. Experimental Methods for Engineers, J.P. Holman, McGraw Hill.
3. Introduction to Measurements and Instrumentation, A.K. Ghosh, 3rd Edition, PHI Learning Pvt. Ltd.
4. Transducers and Instrumentation, D.V.S. Murty, 2nd Edition, PHI Learning Pvt. Ltd.
5. Instrumentation Devices and Systems, C.S. Rangan, G.R. Sarma, V.S.V. Mani, Tata McGraw Hill.
6. Principles of Electronic Instrumentation, D. Patranabis, PHI Learning Pvt. Ltd.
7. A text book in Electrical Technology - B L Theraja - S Chand and Co.
8. A text book in Electrical Technology - B L Theraja - S Chand and Co.
9. Electronic Measurements and Instrumentation, K. Lal Kishore, Pearson India.
10. Electrical and Electronics Measurements and Instrumentation, PrithwirajPurkait, Budhaditya Biswas, Santanu Das, ChiranjibKoley, McGraw Hill India.

\*\*\*\*\*

987



**Serial No-96**  
**Vermicompost Management**  
**SEC0309603**  
**(By LOKD College)**

*Pratik Saini*  
*4/4/24*  
*20/8/2024*

**Skill Enhancement Course (SEC)**  
**Vermicompost Management**  
**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
- Particulars of Course Designer: Department of Zoology, Lokanayak Omeo Kumar Das College

**THEORY:**

	<b>Hours</b>	<b>Marks</b>
<b>UNIT 1 : Vermicomposting: Introduction and Scope</b> Objectives of Vermicomposting - Waste management, soil detoxification and regeneration and sustainable agriculture. Role of earth worm in solid waste management. Vermicomposting for mitigating & managing environmental pollution.	<b>5</b>	<b>5</b>
<b>UNIT 2: Earthworm Biology</b> Morphology & Classification of Earth worms. Reproduction & Life Cycle Important features to identify the species of earthworms. Diversity of Earthworms Species of Earth worms used in Vermiculture Life history of Earthworms (Earthworm Species <i>Eisenia foetida</i> ) Biology of <i>Eisenia foetida</i> . Physiology and Reproduction of Lumbricidae.	<b>10</b>	<b>10</b>



Reproduction & Life Cycle Important features to identify the species of earthworms. Diversity of Earthworms Species of Earth worms used in Vermiculture Life history of Earthworms (Earthworm Species <i>Eisenia foetida</i> ) Biology of <i>Eisenia foetida</i> . Physiology and Reproduction of Lumbricidae. Biology of <i>Eudrilus eugeniae</i> . Taxonomy Anatomy, Physiology and Reproduction of Eudrilidae.	10	10
<b>UNIT 3: Predators &amp; Pests of Earthworms</b> Frequent problems of Vermiculture. How to prevent and fix them. Enemies of Earthworms. Pests of Vermiculture Control of predators, pests & diseases in Vermiculture	Hours 5	Marks 5
<b>UNIT 4: Vermicomposting Methodology</b> Preparation of Vermibed, Different types of Vermibeds Maintenance & Monitoring of Vermibeds - Maintenance of favourable conditions in the Vermibed Preparation of feed & Managing Vermicomposting Unit. Precautions for compost making Harvesting & Packing of Vermicompost Vermiwash preparation, Collection, Composition & Use	Hours 10	Marks 10

**PRACTICAL :**

1. Identify appropriate site and prepare bed for vermicomposting. 2. Establishment of vermicomposting unit Pit method. 3. Establishment of vermicomposting unit Bed method. 4. Inoculate earthworms in prepared unit and manage vermicomposting. 5. Establishment of Vermiwash unit. 6. Monitoring of compost units. 7. Vermicompost production, harvesting and packaging.	Hours 30	Marks 25
--	-------------	-------------

**Suggested Readings:**

1. Text Book of Applied Zoology: Vermiculture, Apiculture, Sericulture, Lac Culture, Agricultural Pests and their Controls: Pradip Jabde Publisher: Discovery Publishing House.
2. Handbook of Organic Farming and Organic Foods with Vermicomposting Neem Publisher: Engineers India Research Institute.
3. Text Book of Vermicompost, Vermiwash & Biopesticides ; Dr.Keshav Singh, Astral International Publications.
4. The Book Hand Book Of Biofertilizers & Vermiculture Publisher: Engineers India Research Institute.
5. Vermitechnology; M. Seethalekshmi & R. Santhi, Saras Publications.

## Serial No-97

### Mass Media and Communication

SEC0309703

(By Mangaldai College)

#### Distribution of Marks:

- |                              |                 |
|------------------------------|-----------------|
| 1. End Semester Examination: | Total Marks: 30 |
| 2. Sessional Examination:    | Total Marks: 20 |
| 3. Practical:                | Total Marks: 25 |

- Theory Credit: 02
- Practical Credit: 01
- No. of Required Classes: 30 hours (Theory) + 30 hours (Practical)
- No. of Non-Contact Classes: 00
- Particulars of Course Designer: **Department of English, Mangaldai College.**

#### Learning Objectives:

- ❖ To understand concepts of advertisement, media, and communication.
- ❖ To acquaint students with ethical aspects of contemporary media.
- ❖ To familiarize students with scriptwriting, writing news reports and editorials.
- ❖ To introduce key concepts like data protection, artificial intelligence, privacy and fact-checking

#### Learning Outcomes:

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

- ❖ Understand key concepts and theories in advertisement, media, and communication.
- ❖ Analyze the impact of media on society and culture.
- ❖ Understand various forms of advertisements, communication and media technologies.
- ❖ Critically assess media content and its ethical implications.

#### **THEORY: 50 Marks**

Units	Hours	Marks
<b>Unit I: Introduction to Mass Communication</b>  1. Mass Communication and Globalization 2. Forms of Mass Communication 3. Communication Theories: Linear, Interactional, and Transactional Models	05	10
<b>Unit II: Advertisement</b>  1. Types of advertisements 2. Advertising ethics	05	10

3. Creating advertisements/storyboards		
<b>Unit III: Media Writing</b> 1. Scriptwriting for TV and radio 2. Writing news reports and editorials 3. Editing for print and online media 4. The five Ws and H (Who, What, When, Where, Why, How)	10	15
<b>Unit IV: Contemporary Issues in Media and Communication</b> 1. Fake news and misinformation 2. The impact of artificial intelligence on media 3. Privacy and Data protection 4. Tools for fact-checking	10	15

**PRACTICAL: 25 Marks**

<b>Topics</b>	<b>Hours</b>	<b>Marks</b>
1. Fact-checking. 2. News reading and recording. 3. Writing news reports and editing. 4. Developing advertisement brochure for mock client 5. Media consumption analysis. 6. Analyzing misinformation in media. 7. Content analysis of 03 popular newspapers and 02 prime-time news shows.	30	25

**Suggested Readings:**

1. Banerjee, S. *News Editing in Theory and Practice*, K.P. Bagchi, 1992.
2. Bell, A. *The Language of News Media*. Oxford: Blackwell, 1991.
3. Bell, A., Garrett, P. *Approaches to Media Discourse*. Oxford: Blackwell, 1998.
4. McQuail, D. *Mass Communication Theory: An Introduction*, Sage Publication, 2005.
5. Scannell, Paddy. *Media and Communication*. Sage Publication, 2007.

**Serial No-98**

**Gender Sensitization in India**

**SEC0309803**

**(By Manikpur Anchalik College)**

**Skill Enhancement Course  
Gender Sensitization in India  
Credits: 3(Marks: 75)**



**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No. of Required Classes 30 hours ( Theory ) + 30 hours ( Practical)
- No. of non- contact Classes 00
- Particulars of Course Designer Department of Political Science, ManikpurAnchalik College

**Learning objectives:**

- ❖ Understand the difference between sex and gender.
- ❖ Develop an understanding about gender inequalities and their adverse effects on women as well as men.
- ❖ Aims at sensitising students to issues related to gender and its related concepts.
- ❖ Help the students to integrate gender sensitive practices in their private and professional life.
- ❖

**Learning Outcomes:**

**Learning Outcomes:**

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

- ❖ Learn to erase all the gender biasness exists between men and women in the society and will progress towards a fair and unbiased society.
- ❖ Better understanding of important issues related to gender in contemporary India.
- ❖ Help the students to understand the concept of equality among men and women
- ❖ Help the students to become a good citizen and engage themselves in nation building.
- ❖ Help the students to understand violence against women
- ❖ Awareness about the provisions in the Indian Constitution that provide protection and relief to women.

**Theory**

Unit-I Understanding gender	Hours	Marks
Concept of sex and gender, Biological Sex and Socially Constructed Gender, Femininity and Masculinity , Gender Stereotypes and their Impact; Breaking the Stereotypes	8	8
Unit-II Gender Inequality and its Impact on Men and Women	Hours	Marks
Understanding the Notion of Citizenship, Violation of Women's Rights as Citizens and Individuals , Nature of Gender Inequalities	7	7

### Theory

<b>Unit-I Understanding gender</b> Concept of sex and gender, Biological Sex and Socially Constructed Gender, Femininity and Masculinity , Gender Stereotypes and their Impact; Breaking the Stereotypes	Hours 8	Marks 8
---	------------	------------

<b>Unit-II Gender Inequality and its Impact on Men and Women</b> Understanding the Notion of Citizenship, Violation of Women's Rights as Citizens and Individuals , Nature of Gender Inequalities	Hours 7	Marks 7
--	------------	------------

<b>Unit-III Understanding Violence</b> Understanding sexual harassment, Domestic Violence- its types, Impact of violence	Hours 7	Marks 7
---	------------	------------

<b>Unit-iv: Violence against Women and its Indian Constitutional Provisions</b> Contributing to Prevention of Sexual Harassment – What is and is not Sexual Harassment, Supreme Court Judgements and the provisions in the Act of 2013 about prevention of Sexual Harassment, Role of men in prevention of sexual harassment at workplace, Gender sensitive language, work culture and workplace	Hours 8	Marks 8
---	------------	------------

### PRACTICAL

#### PRACTICAL

<ol style="list-style-type: none"><li>1. Group Project to explore gender stereotypes in Indian society</li><li>2. Case study analysis to understand Domestic Violence</li><li>3. Workshop to understand gender based violence and how to prevent it</li><li>4. Group discussion to understand the role of men in gender equality</li></ol>	Hours 30	Marks 25
--	-------------	-------------

#### Suggested Readings:

Singh Raj Pal, Gender Sensitization: Issues and Challenges, Raj Publications, 2019

- Sarkar Siddhartha, Women & Gender: Society and Community, Gyan Books
- Bhasin, Kamla, 'Gender Basics, What is Patriarchy?' Delhi, Women Unlimited, 1993.
- Bhasin, Kamla, and Khan S Nighat, 'Gender Basics, Feminism and its Relevance in South Asia', Delhi: Women Unlimited, 1999.
- Bhasin, Kamla, 'Gender Basics, Understanding Gender', Delhi: Women Unlimited, 2000.
- Holmes, M. 2007. What is Gender? Its Approaches, Sage Publication: New Delhi

- Sarkar Siddhartha, *Women & Gender: Society and Community*, Gyan Books
- Bhasin, Kamla, 'Gender Basics, What is Patriarchy?' Delhi, Women Unlimited, 1993.
- Bhasin, Kamla, and Khan S Nighat, 'Gender Basics, Feminism and its Relevance in South Asia', Delhi: Women Unlimited, 1999.
- Bhasin, Kamla, 'Gender Basics, Understanding Gender', Delhi: Women Unlimited, 2000.
- Holmes, M. 2007. *What is Gender? Its Approaches*, Sage Publication: New Delhi

2018/2019  
Principal, IC  
Manikpur Anchalik College  
Manikpur

**Serial No-99**  
**Microsoft Excel**  
**SEC0309903**  
**(By Nalbari College)**

**Course Name: Microsoft Excel**

**Credit: 03**

**Credit Distribution: Theory-02, Practical-01**

**Content:**

**Target Group:** Students from All Stream

**Learning Objective:** The intermediate Excel users who want to master more can use our Advance Excel Course Syllabus. To become an Excel power user advanced formula, functions, chart, and type of financial analysis.

**Unit 1:**(05 classes)

Excel Introduction: An overview of basic spreadsheet concept, Various selection Entry: Creating, editing, saving, page settings, Basic Calculation and basic For Common options in Excel, Absolute and Relative Cells, Protecting and Un-Protecting cells, Shortcut Keys

**Unit 2:**(10 classes)

Excel Functions: Working with Functions & Formulas, Basic Functions, Lookup Functions, Financial Functions, Statistical Functions, Maths & Trig. Functions, Text

**Unit 3:**(15 classes)

Modifying worksheets with color, Conditional Formatting and IF Conditions

**Practical:** (30 classes)

Q.1 The following worksheet contains Roll. Nos. & Marks in 5 subject of a student grades as per the following:

	Marks	Grades
	0-40	4
	40-50	3
	50-60	2
	60&above	1

	A	B	C	D	
1	RollNo.	ENG	HINDI	SCIENCE	M
2	110	45	56	67	
3	GRADE				

Q.2 The following worksheet contains Names & Sale for 10 salesmen. Calculate the following :

Sale	Bonus
0-30000	0
30000-40000	3000
40000-50000	4000
50000-60000	5000
60000-70000	6000
70000-80000	7000
80000&above	8000

	A	B	C	D
1	NAME	SALE	BONUS	
2	Deep	30000		
3	Jayesh	40000		
4	Yash	45000		
5	Sara	48000		
6	Gita	55000		
7	Jinal	32000		
8	Kavita	66000		
9	Minal	23000		
10	Naresh	43000		
11	Rima	37000		

Q.3 The following worksheet contains Customer No. , Number of units consume

Q.3 The following worksheet contains Customer No. , Number of units consumed  
10 customers. Calculate their bill amount as per the following :

Number of units	Rate
<200	Rs.3
>=200,<500	Rs.6
>=500	Rs.10

	A	B	C	D		
1	Cust. No.	No. of Units	Rate	Bill Amount		
2	1101	340				
3	1102	180				



4	1103	400				
5	1104	600				
6	1105	350				
7	1106	470				
8	1107	890				
9	1108	200				
10	1109	500				
11	1110	360				

Q.4 A worksheet contains Roll Number , Marks in 2 subjects for 50 students in a  
Calculate Result and Grade using the following:

A student is declared as PASS if he gets 40 or more in both the subjects , Otherw:  
FAIL.

All FAILED students will be given Grade IV

For PASSED students Grade will be obtained as follows :

AVERAGE	GRADE
>=60	I
<60but>=50	II

1 ROLL SUB1 SUB2 AVERAGE RESULT GRADE

:

51

Q.5 The following worksheet contains Name & Sales of 10 salesmen .Calculate c  
as per the following:

Sales	Commission
First 30,000	5%
Next 40,000	10%

Excess	15%	
A	B	C

Q. 6 The following worksheet contains Name & Taxable Income for 50 employees  
Income Tax Surcharge and Total Tax for the following worksheet

	A	B	C	D	E
1	NAME	TAXABLE INCOME	INCOME TAX	SURCHARGE	1
2					
:					
:					
50					

Income Tax is calculated as follows :

Taxable Income	Income tax
First 1,50,000	Nil
Next 1,00,000	10%
Next 75,000	20%
Excess	30%

Surcharge is 3% on Income Tax if Taxable income is above 5,00,000

Q.7 A worksheet contains following data :

2	Deep	M	FY	Open
3	Jayesh	M	SY	Reserved
4	Yash	M	TY	Reserved
5	Sara	F	FY	Reserved

6	Gita	F	FY	Open
7	Jinal	F	TY	Open
8	Kavita	F	SY	Open
9	Minal	F	SY	Reserved
10	Karan	M	TY	Reserved
11	Abhay	M	TY	Open

12	Bina	F	FY	Open
13	Seema	F	FY	Reserved
14	Naresh	M	FY	Reserved
15	Rima	F	TY	Open
16	Gajendra	M	SY	Open

Filter the worksheet to show

- a) Female students from Reserved category
- b) Male students from TY
- c) Open category students paying fees > 3000

Recommended books and references:

1. Excel 2016 Bible, by John Walkenbach
2. Excel: Quick Start Guide from Beginner to Expert, by William Fischer
3. Excel 2016 from Scratch, by Peter Kalmström

**Serial No-100**  
**Freshwater Pearl Culture**  
**SEC0310003**  
**(By Bhawanipur College)**

1. End Semester Examination: Total Marks : **30**
  2. Internal Examination: Total Marks : **20**
  3. Practical: Total Marks : **25**
- Theory Credit : **02**
  - Practical Credit : **01**
  - No. of Required Classes : **30 hours (Theory) + 30 hours (Practical)**
  - Particulars of Course Designer : **Department of Zoology, Bhawanipur Anchalik College**

**Learning objectives:**

- ❖ Understand the basics of pearl and freshwater pearl culture.
- ❖ Develop interest to acquire the knowledge and skill required in freshwater pearl culture.
- ❖ Learn various technologies used in freshwater pearl culture
- ❖ Apply the knowledge and skills to start freshwater pearl culture as a source of income.

**Learning outcomes:**

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

- ❖ Describe the concept of pearl including its culture both in freshwater and saltwater.
- ❖ Summarize pearl mussels' diversity and biology, pearl formation and its classification.
- ❖ Summarize the knowledge and technology used in freshwater pearl culture.
- ❖ Apply the knowledge and technology of freshwater pearl culture to setup a freshwater pearl farm.
- ❖ Identify the effect of various factors in freshwater pearl quality and the challenges and future prospects of freshwater pearl farming.

**THEORY (CREDIT: 2)**

Units	Hours	Marks
-------	-------	-------

<b>Unit 1: Introduction to Pearl Culture</b> Concept of Pearl, History of Pearl culture- abroad and in India, Saltwater and freshwater pearl culture	<b>3</b>	<b>5</b>
<b>Unit 2: Freshwater Mussels and Pearl Formation</b> Diversity of freshwater pearl mussels, Natural History of freshwater mussels, mechanism of pearl formation, biomineralisation of pearls, classification of freshwater pearls.	<b>6</b>	<b>10</b>
<b>Unit 3: Freshwater Pearl Farming Technology</b> Site selection, collection of mussels, Pre-operative condition, Preparation and surgical implantation of nuclei, Post-operative care, Culture in ponds, Culture in tanks, Harvest of pearls and re-implantation.	<b>10</b>	<b>17</b>
<b>Unit 4: Pearl quality and affect of various factors</b> Host, donor mussels and graft tissue preparation, Implantation, Mussel convalescence, Tool maintenance, Temperature, Quantity and quality of natural feed, Culture period.	<b>8</b>	<b>13</b>
<b>Unit 5: Challenges and future prospects</b> Challenges in freshwater pearl culture, future prospects and feasibility of pearl farming business in India.	<b>3</b>	<b>5</b>

### PRACTICAL (CREDIT: 1)

Experiments	Hours	Marks
<ol style="list-style-type: none"> <li>1. Identification of important freshwater mussels found in India</li> <li>2. Study of the life cycles of freshwater mussels- <i>Lammelidens marginalis</i>, <i>Lammelidens corrianus</i> and <i>Parreysia corrugata</i>.</li> <li>3. Study of various instruments and their use in freshwater pearl culture.</li> <li>4. Originality testing and grading methods of cultured pearls.</li> <li>5. Field visit to any freshwater pearl culture farm and submission of report.</li> </ol>	30	25

#### Suggested Readings

1. Dube K et al. (2024) Handbook of Freshwater Pearl Culture. Narendra Publishing House, Delhi.

2. Saurabh S, Pradhan S & Suman S (2021) Recent Trends in Freshwater Pearl Farming in India. In: Ray S & Mukherjee S (Eds.) Update on Malacology. IntechOpen.
3. Haws M (2002) The Basic Methods of Pearl Farming: A Layman's Manual. Center for Tropical and Subtropical Aquaculture, Publication No. 127.
4. Suman et al. (2021) Freshwater pearl culture practices and challenges in India. Aquaculture, 25(4):19-22.

\*\*\*\*\*

## Serial No-101

### Essentials of Electronic Devices

SEC0310103

(By Behali College)

#### **Pre-requisites:**

A student must complete the courses mentioned below in the previous semesters.

*Skill Enhancement Course Offered in Semester I:* Electronic circuits design

*Skill Enhancement Course Offered in Semester II:* Basic skill on Electronic Equipments

#### **Distribution of Marks:**

- |                                 |  |
|---------------------------------|--|
| 1. End Semester Examination     | : 30                                       |
| 2. Sessional Examination        | :20  |
| 3. Practical                    | :25  |
| • Theory Credit                 | :2   |
| • PracticalCredit               | : 1  |
| • Number of required classes    | : 30 hours (Theory) + 30 Hours (Practical) |
| • Number of non-contact classes | : 00                                       |

#### **Course Designed By:**

*Department of Physics,  
Behali Degree College  
Borgang-784167, Biswanath, Assam.*

#### **Learning Objectives:**

This course aims to provide students with a foundational understanding of feedback amplifiers, field-effect transistors, optoelectronic devices, and semiconductor technology, focusing on their principles, applications, and significance in modern electronics.

#### **Learning Outcomes:**

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

1. Understand the use of Amplifier and Transistor in radio communication system.
2. Explore the operation and applications of field-effect transistors (FETs) and their role in electronic circuits.
3. Know some frequently used optoelectronic devices and their applications.
4. Gain the basic knowledge of semiconductor materials, device fabrication processes, and importance of quality control in semiconductor manufacturing industry.

#### **THEORY:**

<b>Unit I:Feedback Amplifier</b> Positive Feedback, Negative Feedback, Stability and Frequency Response, Voltage gain, Amplifier with Positive and Negative Feedback, Inverting and Non-inverting Amplifiers, Advantages and Disadvantages of Feedback Amplifiers	8 hours	13 Marks
<b>Unit II:Field Effect Transistor</b> Types of Field Effect Transistor, Junction Field Effect Transistor (JFET), Working Principle, Schematic symbol, Importance, Difference between JFET and bipolar transistor, Applications of JFET in analog and digital circuits, Introduction to MOSFET.	10hours	17 Marks
<b>Unit III:Optoelectronic Devices</b> Introduction to LED, Photodiode, Solar Cell, LCD, CRO, Operation and their applications	5hours	8 Marks
<b>Unit IV:Semiconductor Technology</b> Basic Semiconductor materials (Silicon, Gallium Arsenide, etc.), Semiconductor Devices, Introduction to IC, Semiconductor Chips, Fabrication process of Semiconductor Chips, Advantages and Limitation of Semiconductor Chips, Semiconductor packaging techniques, Testing and quality control in semiconductor manufacturing (A brief Introduction)	7 hours	12 Marks

**PRACTICAL (25 Marks):**

1. Identification of different electronic devices.
2. To study the inverting and non-inverting amplifier.
3. To obtain the wave form of a given oscillator using a cathode ray oscilloscope.
4. To obtain the wave form of A.C. mains supply using a cathode ray oscillator.
5. To plot output characteristics of a field effect transistor.
6. Identification of Semiconductor I.C/Chips

**Reference books:**

1. Principle of Electronics, V. K. Mehta, Rohit Mehta.
  2. Electron devices and circuit theory, Boylestad, Nashelsky.
  3. Electronic fundamentals and applications, D Chattopadhyay, P C Rakshit.
  4. B.SC. Practical Physics, C L Arora.
  5. Semiconductor Physics and Devices" by Donald Neamen.
-



## Serial No-102

### Assamese Book Editing and Proofreading

SEC0310203

(By LGB Girls College)

#### DISTRIBUTION OF MARKS:

10. End Semester Examination:	TotalMarks:	30
11.	Sessional Examination:	
	TotalMarks:	20
12.	Practical:	TotalMarks: 25
➤ Theory Credit	02	
➤ Practical Credit	01	
➤ No. of Required Classes	30 hours (Theory) + 30 hours (Practical)	
➤ No.of Non-Contact Classes	00	
➤ <b>Particulars of Course Designer: LGB Girls' College, Tezpur</b>		

#### LEARNING OBJECTIVES

1. **Produce error-free text:** Learn to edit and proofread Assamese text to ensure accuracy and quality.
2. **Improve writing clarity:** Understand how to enhance the clarity and coherence of Assamese writing.
3. **Meet publishing industry standards:** Familiarize yourself with industry guidelines and best practices for editing and proofreading Assamese text.
4. **Enhance language skills:** Improve your overall proficiency in Assamese language and grammar.
5. **Prepare for a career in editing and proofreading:** Develop the skills and knowledge needed to succeed in the field of Assamese book editing and proofreading.

#### LEARNING OUTCOMES:

9. **Produce high-quality, error-free Assamese text.**
10. **Improve the clarity, coherence, and overall flow of Assamese writing.**
11. **Apply industry-standard editing and proofreading techniques to Assamese text.**
12. **Enhance proficiency in Assamese language and grammar.**
13. **Prepare for a career in editing and proofreading Assamese books and publications.**

#### THEORY

-

<p><b>Unit 1: Introduction to Book Editing</b></p> <p>*Overview of book editing process</p> <p>*Types of editing (developmental, line, copy, proofreading)</p> <p>*Editing styles and guidelines</p>	Hours:5	Marks: 5
<p><b>Unit2: Assamese Language Fundamentals</b></p> <p>*Assamese alphabet and script</p> <p>*Grammar and syntax rules</p> <p>*Vocabulary building and usage</p>	Hours:5	Marks:5
<p><b>Unit3: Editing Techniques</b></p> <p>*Evaluating manuscripts for content, structure, and style</p> <p>*Using editing software and tools (e.g., Microsoft Word, Adobe Acrobat)</p> <p>*Editing for clarity, coherence, and flow</p> <p>-</p>	Hours:5	Marks:5
<p><b>Unit 4 : Assamese Proofreading</b></p> <p>*Identifying and correcting errors in Assamese text</p> <p>*Understanding Assamese typography and font styles</p> <p>*Using proofreading tools and software (e.g., Grammarly, Ginger)</p> <p>-</p>	Hours:5	Marks:5
<p><b>Unit 5: Advanced Editing and Proofreading</b></p> <p>*Editing for tone, voice, and style</p> <p>*Proofreading for consistency and accuracy</p> <p>*Advanced techniques for improving writing quality</p> <p>-</p>	Hours:5	Marks:5
<p><b>Unit 6:Editor's Report:</b></p> <p>*Editing and proofreading decisions</p> <p>*Professional formatting and layout</p> <p>*Apply editing and proofreading skills to a complete Assamese manuscript, demonstrating mastery of course concepts and techniques.</p> <p>-</p>	Hours:5	Marks:5

## PRACTICAL

<b>Practical Exercises:</b> <ol style="list-style-type: none"><li>1. <b>Editing and Proofreading Drills:</b> Provide students with Assamese texts containing errors in grammar, punctuation, and spelling. Ask them to identify and correct the errors.</li><li>2. <b>Manuscript Evaluation:</b> Give students a sample Assamese manuscript to evaluate for content, structure, and style.</li><li>3. <b>Editing for Clarity:</b> Provide students with a sample Assamese text and ask them to edit it for clarity, coherence, and overall flow.</li><li>4. <b>Proofreading Challenge:</b> Create a proofreading challenge where students have to identify and correct errors in a given Assamese text within a set time limit.</li></ol>	Hours: 30	Marks: 25
---	-----------	-----------

## SUGGESTED READING

### Book Editing:

1. "The Chicago Manual of Style" (17th edition) by The University of Chicago Press
2. "The Elements of Style" by William Strunk Jr. and E.B. White
3. "Garner's Modern English Usage" by Bryan A. Garner
4. "The Copyeditor's Handbook" by Amy Einsohn and Marilyn Schwartz
5. "Self-Editing for Fiction Writers" by Renni Browne and Dave King

### Assamese Language and Grammar:

1. "Assamese Grammar and Composition" by Dr. Banikanta Kakati
2. "Assamese Language and Literature" by Dr. Maheswar Neog
3. "A Comprehensive Grammar of Assamese" by Dr. Golok Chandra Goswami
4. "Assamese Dictionary" by Dr. Hemchandra Barua
5. "Assamese: A Linguistic Study" by Dr. Pabitra Sarkar

### Proofreading:

1. "Proofreading and Editing" by Judith Butcher
2. "The Proofreader's Handbook" by Amy Einsohn and Marilyn Schwartz
3. "Grammar Girl: Quick and Dirty Tips for Better Writing" by Mignon Fogarty
4. "The Oxford English Grammar" by Sidney Greenbaum
5. "Merriam-Webster's Guide to Punctuation and Style"

### Assamese Typography and Font Styles:

1. **"Assamese Typography"** by Dr. Sitanath Goswami
2. **"Assamese Font Styles and Design"** by Dr. Diganta Sarma
3. **"Assamese Calligraphy"** by Dr. Naren Chandra Nath

\*\*\*\*\*

**Serial No-103**

**Ethnobotany**

**SEC0310303**

**(By Nabajyoti College)**

*Skill Enhancement Course (SEC), Botany*

**Ethnobotany**

**Semester: 3<sup>rd</sup>**

**Paper Code:**

**Credit: 3 (Marks-75)**

**Distribution of Marks:**

1. End semester examination: 45
2. Sessional Examination: 30

**Learning Objectives:**

- **Understand the Role of Plants in Human Cultures:**  
Students will be able to explain the significance of plants in various cultures and their uses in traditional medicine, rituals, and daily life.
- **Identify Key Ethnobotanical Species:**  
Students will be able to identify and describe the uses of key plant species that have cultural, medicinal, or economic importance in different societies.
- **Historical and Cultural Perspectives:**  
Students will gain an understanding of the historical relationships between humans and plants, including how these relationships have evolved over time.
- **Ethnobotanical Methodologies:**  
Students will learn the basic methodologies used in ethnobotanical research, including fieldwork, interviews, and data collection.

**Learning outcomes:**

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

- **Comprehend the Interrelationship Between Plants and Cultures:**  
Students will be able to articulate the various ways in which plants are integral to the cultural practices, beliefs, and livelihoods of different societies.
- **Identify and Classify Ethnobotanically Significant Plants:**  
Students will demonstrate the ability to identify, classify, and describe plants that hold ethnobotanical significance, using both scientific and local nomenclature.

Students will be able to articulate the various ways in which plants are integral to the cultural practices, beliefs, and livelihoods of different societies.

- Identify and Classify Ethnobotanically Significant Plants:  
Students will demonstrate the ability to identify, classify, and describe plants that hold ethnobotanical significance, using both scientific and local nomenclature.
- Analyze the Historical Evolution of Ethnobotanical Practices:  
Students will be able to analyze and compare how ethnobotanical practices have evolved across different historical periods and cultural contexts.

### THEORY

Units	Hours	Marks
<b>Unit 1 : Ethnobotany</b> Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India,	10	10

and their life styles. Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses.		
<b>Unit 2: Methodology of Ethnobotanical studies</b> a) Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) temples and sacred places.	09	09
<b>Unit 3 : Role of ethnobotany in modern Medicine</b> Medico-ethnobotanical sources in India; Significance of the following plants in ethno botanical practices (along with their habitat and morphology) a) Azadirachta indica b) Ocimum sanctum c) Vitex negundo. d) Gloriosa superba e) Tribulus terrestris f) following plants in ethno botanical practices (along with their habitat and morphology) a) Azadirachta indica b) Ocimum sanctum c) Vitex negundo. d) Gloriosa superba e) Tribulus terrestris f) Pongamia pinnata g) Cassia auriculata h) Indigofera tinctoria. Role of ethnobotany in modern medicine with special example Rauwolfia serpentina, Trichopus zeylanicus, Artemisia, Withania. Role of ethnic groups in conservation of plant genetic resources. Endangered taxa and forest management (participatory forest management).	20	20
<b>Unit 4 : Ethnobotany and legal aspects</b> Ethnobotany as a tool to protect interests of ethnic groups. Sharing of wealth concept with few examples from India. Biopiracy, Intellectual Property Rights and Traditional Knowledge.	06	06

### Suggested Readings

- S.K. Jain, Manual of Ethnobotany, Scientific Publishers, Jodhpur, 1995.
- S.K. Jain (ed.) Glimpses of Indian Ethnobotany, Oxford and I B H, New Delhi – 1981
- Lone et al., Palaeoethnobotany
- S.K. Jain (ed.) 1989. Methods and approaches in ethnobotany. Society of ethnobotanists. Lucknow, India.
- S.K. Jain, 1990. Contributions of Indian ethnobotany. Scientific publishers, Jodhpur.
- Colton C.M. 1997. Ethnobotany – Principles and applications. John Wiley and sons – Chichester
- Rama Rao, N and A.N. Henry (1996). The Ethnobotany of Eastern Ghats in Andhra Pradesh, India. Botanical Survey of India. Howrah. 8) Rajiv K. Sinha – Ethnobotany The Renaissance of Traditional Herbal Medicine – INA – SHREE Publishers, Jaipur-1996 9)

Prepared by

For

HoD

HEAL  
DEPARTMENT OF BOTANY  
NABAJYOTI COLLEGE,  
KALGACHIA-761214

**Serial No-103**  
**Ethnobotany**  
**SEC0310303**  
**(By Dhing College)**

**DEPARTMENT OF BOTANY, DHING COLLEGE**

Syllabus for 3<sup>rd</sup> Semester (FYUGP) Skill Enhancement Course (SEC)

Subject: Botany

Course Title: Ethnobotany

Total Marks: 75 (Theory- 50 + Practical – 25)

Credit: 3 (Theory- 2 + Practical-1)

Number of classes required: 30 hours (Theory) + 30 hours (Practical)

Designed by Dr. Sanjeeb Kumar Nath, Department of Botany, Dhing College

**Learning Objectives:**

Know about the traditional knowledge of plants and their uses especially their roles in curing various human diseases  
Acquire knowledge on various types of drug preparation  
Understand various phytochemicals involved in therapeutics  
Study certain important plants involved in home remedies  
Understand the importance of preservation and conservation of indigenous medicinal plants.

**Learning Outcomes:**

Demonstrate the concept, scope and objectives of ethnobotany with reference to tribal lifestyle (Understanding)  
Interpret different ethnobotanical methodologies (Understanding)  
Examine the role of various plants in traditional and modern medicine (Analyzing)  
Infer the legal aspects of ethnobotany (Understanding)

**Unit I: Ethnobotany (6 Hrs)**

Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles. Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses.

**Unit II: Methodology of Ethnobotanical studies (6 Hrs)**

a) Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) temples and sacred places.



relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles. Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses.

**Unit II: Methodology of Ethnobotanical studies (6 Hrs)**

a) Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) temples and sacred places.

**Unit III: Role of ethnobotany in modern Medicine (10 Hrs)**

Medico-ethnobotanical sources in India; Significance of the following plants in ethno botanical practices (along with their habitat and morphology) a) *Azadiractha indica* b) *Ocimum sanctum* c) *Vitex negundo* d) *Gloriosa superba* e) *Tribulus terrestris* f) *Pongamia pinnata* g) *Cassia auriculata* h) *Indigofera tinctoria*. Role of ethnobotany in modern medicine with special example *Rauwolfia serpentina*, *Trichopus zeylanicus*, *Artemisia*, *Withania*. Role of ethnic groups in conservation of plant genetic resources. Endangered taxa and forest management (participatory forest management).

**Unit IV: Ethnobotany and legal aspects (8 Hrs)**

Ethnobotany as a tool to protect interests of ethnic groups. Sharing of wealth concept with few examples from India. Biopiracy, Intellectual Property Rights and Traditional Knowledge.

**PRACTICAL**

**30 Hours**

1. Field trip to tribal settlement to survey and document on people-plant relationship.
2. Collection, processing and preservation of ethnobotanical specimens in the institutional repository.
3. Study of medicinal plants in the locality/botanical garden and collection of plant samples for preparation of Herbarium

**Suggested Readings**

- 1) S.K. Jain, Manual of Ethnobotany. Scientific Publishers, Jodhpur, 1995.
- 2) S.K. Jain (ed.) Glimpses of Indian. Ethnobotny. Oxford and I B H, New Delhi – 1981
- 3) Lone et al., Palaeoethnobotany
- 4) S.K. Jain (ed.) 1989. Methods and approaches in ethnobotany. Society of ethnobotanists, Lucknow, India.
- 5) S.K. Jain, 1990. Contributions of Indian ethnobotny. Scientific publishers, Jodhpur.
- 6) Colton C.M. 1997. Ethnobotany – Principles and applications. John Wiley and sons- Chichester
- 7) Rama Ro, N and A.N. Henry (1996). The Ethnobotany of Eastern Ghats in Andhra Pradesh, India. Botanical Survey of India. Howrah. 8) Rajiv K. Sinha – Ethnobotany The Renaissance of Traditional Herbal Medicine – INA – SHREE Publishers, Jaipur-1996\_9)



# Serial No-104

## Basics of Scientific Programming using Python

SEC0310403

(By Mangaldai College)

*Skill Enhancement Course (SEC)*  
**Basics of Scientific Programming using Python**  
Credits: 3 (Marks:75)

**Distribution of Marks:**

- |   |                        |
|---|------------------------|
| 1. End Semester Examination: Total Marks: | 30                     |
| 2. Sessional Examination: Total Marks:    | 20                     |
| 3. Practical: Total Marks:                | 25                     |
| ➤ Theory Credit                           | 02                     |
| ➤ Practical Credit                        | 01                     |
| ➤ No. of Required Classes                 | 30 hours (Theory) + 30 |
| ➤ Particulars of Course Designer:         | Department of Physics. |

**Learning objectives:**

- Understand the fundamental programming concepts and develop the debug simple Python programs.
- Learn to manipulate, analyse and visualize data by using Python.
- Learn to perform basic numerical computations
- Applying programming techniques to solve simple scientific problem
- Learn to work with real world scientific data.

**Learning outcomes:**

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

- Demonstrate the ability to write, debug and execute Python program scientific problems.
- Effectively use Python libraries like NumPy and Pandas to manipulate process data.
- Design and implement modular code by creating and utilizing function reusability and maintainability.
- Create and interpret various types of data visualizations using Python scientific data clearly.
- Understand the role of programming in scientific applications.

**THEORY**

<b>Unit 1: Introduction to Python</b> What is Python? Setting up Python environment (IDLE). Working with Colab, Jupyter Notebook	Ho
<b>Unit II: Python Basics, Variable, Data Types and Operators</b> Basic syntax and variables. Simple input/output operations.	Ho

Numbers, strings, and boolean data types. Arithmetic, comparison, and logical operators. String manipulation	
<b>Unit III: Data Types</b> Basic Data Types: Numeric, String, List, Tuple, Dictionary, Boolean, Sets.	Ho
<b>Unit IV: Control Flow</b> Conditional Statements: if, else and elif. Python Pass Statement. Ternary operator. Looping: while, for, Nested loops. Loop Control Statements: continue, break pass.	Ho
<b>Unit V: Functions and Modules</b> Defining and calling functions, Parameters and return, Python modules.	Ho
<b>Unit VI: Python Libraries and Data Files</b> NumPy, SciPy, Pandas, Matplotlib. Basic Ideas of Seaborn, Astropy, PyDSTool, TensorFlow and PyTorch. Types of Data Files, CSV File and Data Frame	Ho

**PRACTICAL**

<b><u>At least 12 programs to be performed from the following list</u></b>	Ho
1. To calculate the area and circumference of a circle with radius inputted by the user.	

<b><u>At least 12 programs to be performed from the following list</u></b>	Ho
<ol style="list-style-type: none"> <li>1. To calculate the area and circumference of a circle with radius inputted by the user.</li> <li>2. To find sum and average of a list of numbers.</li> <li>3. To find the largest of a given list of numbers.</li> <li>4. To convert temperature from Celsius to Fahrenheit.</li> <li>5. To determine if a year is a leap year.</li> <li>6. Sorting of numbers in ascending and descending order.</li> <li>7. To print out all natural even/ odd numbers between given limits.</li> <li>8. To find maximum, minimum and range of a given set of numbers.</li> <li>9. To find the solution of linear equation.</li> <li>10. To find the roots of a quadratic equation.</li> <li>11. To find the product of two matrices.</li> <li>12. Define two sets and demonstrate the intersection, union, difference and symmetric difference between the sets.</li> <li>13. To find the mean, median and mode for a given set of data.</li> <li>14. To compile a frequency distribution and evaluate standard deviation and linear regression.</li> <li>15. To write program to open a file and generate data for plotting using Matplotlib.</li> </ol>	

**Suggested Readings**

1. Hill Christian (2020) Learning Scientific Programming with Python University Press.
2. Sastry S.S (2012) Introduction to Numerical Analysis, PHI Learning
3. Kanetkar Yashwant and Kanetkar Aditya (2023) Let us Python, BPJ
4. Gupta Abhijit K Scientific Computing in Python (2021) 2<sup>nd</sup> Edition
5. Banerjee Abhinaba (2024) Python Libraries for Data Analysis and Education Pvt Ltd

\*\*\*\*\*

# Serial No-105

## MAT-SEC: LaTeX and HTML(P)

SEC0310503

(By Nabajyoti College)

SEMESTER-III

SKILL ENHANCEMENT COURSE

MAT-SEC : LaTeX and HTML(P)

**Total marks: 75**

1. Internal Assessment Marks: 20
2. Final Examination Marks: 30
3. Practical Examination Marks: 25

*(Each unit carry equal credit)*

**Course Objectives:** The purpose of this course is to acquaint students with the latest typesetting skills, which shall enable them to prepare high quality typesetting, beamer presentation and webpage's.

**Course Learning Outcomes:** After studying this course the student will be able to:

- i) Create and typeset a LaTeX document.
- ii) Typeset a mathematical document using LaTeX.
- iii) Learn about pictures and graphics in LaTeX.
- iv) Create beamer presentations.
- v) Create web page using HTML.

**Unit 1:** Elements of LaTeX; Hands-on-training of LaTeX; graphics in LaTeX; PSTricks; Beamer presentation.

**Unit 2:** HTML, creating simple web pages, images and links, design of web pages.

**Practical:** Six practical should be done by each student. The teacher can assign practical from the exercises from [1].

**Text Book:**

1. Martin J. Erickson and Donald Bindner, A Student's Guide to the Study, Practice, and Tools of Modern Mathematics, CRC Press, Boca Raton, FL, 2011.

**Reference Book:**

---

**Course Objectives:** The purpose of this course is to acquaint students with the latest typesetting skills, which shall enable them to prepare high quality typesetting, beamer presentation and webpage's.

**Course Learning Outcomes:** After studying this course the student will be able to:

- i) Create and typeset a LaTeX document.
- ii) Typeset a mathematical document using LaTeX.
- iii) Learn about pictures and graphics in LaTeX.
- iv) Create beamer presentations.
- v) Create web page using HTML.

**Unit 1:** Elements of LaTeX; Hands-on-training of LaTeX; graphics in LaTeX; PSTricks; Beamer presentation.

**Unit 2:** HTML, creating simple web pages, images and links, design of web pages.

**Practical:** Six practical should be done by each student. The teacher can assign practical from the exercises from [1].

**Text Book:**

1. Martin J. Erickson and Donald Bindner, A Student's Guide to the Study, Practice, and Tools of Modern Mathematics, CRC Press, Boca Raton, FL, 2011.

**Reference Book:**

1. L. Lamport, LATEX: A Document Preparation System, User's Guide and Reference Manual. Addison-Wesley, New York, second edition, 1994.

**Serial No-106**

**Functional Arabic**

**SEC0310603**

**(By Nabajyoti College)**

Semester- III  
Skill Enhancement Course (SEC)  
Subject: **Arabic**  
Title of the paper: Functional Arabic  
Credits: 3 (Marks: 75)  
Paper code:.....

**Distribution of Marks:**

1. End semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical/Project/Dissertation: Total Marks: 25

**Learning Objectives:**

1. To achieve basic information of Arabic Language and its proficiency in speaking.
2. To understand the basics of Arabic Language by enabling students to identify correct formation.
3. To develop interest of readers in Arabic Language
4. To help the students to learn functional and spoken improvement

**Learning Outcomes:**

1. The course will help the learners in social interaction and be able to convey basic information in Arabic.
2. The course will lead the students to comprehend simple audio-video text in Arabic
3. To increase the ability to translate several widely used papers from Arabic to English and the other way around.
4. To develop the communicating skill in Arabic among the learners

**Theory (There should be minimum 1 unit for each theory credit)**

- |   |  |  |
|---|--|--|
| <b>Unit- I: Basics of Arabic Language</b> <ul style="list-style-type: none"><li>• Introduction to Arabic Alphabet</li><li>• Formation of Arabic words</li></ul> |  |  |
|---|--|--|

the other way around.

4. To develop the communicating skill in Arabic among the learners

**Theory (There should be minimum 1 unit for each theory credit)**

<b>Unit- I: Basics of Arabic Language</b> <ul style="list-style-type: none"><li>• Introduction to Arabic Alphabet</li><li>• Formation of Arabic words</li><li>• Pronunciation of Arabic Letter</li><li>• Listening to text, listening to Arabic audio-visual trials of a good listener</li><li>• Classification and recognition of Letters</li></ul>	Hours 15	Marks 25
<b>Unit- II: Development of Reading and writing skill</b> <ul style="list-style-type: none"><li>• Reading comprehension and combination of letters</li></ul>	Hours 15	Marks 25

<ul style="list-style-type: none"><li>• Writing practices</li><li>• Sentence making (Nominal and Verbal sentences)</li><li>• Use of Demonstrative pronoun</li><li>• Parts of speeches</li></ul>		
<b>Unit- III: vocabulary enrichment and Arabic conversation</b> <ul style="list-style-type: none"><li>• Relatives: Father, Mother, Brother and Sister etc.</li><li>• Nature: Son, Moon, Earth, River, Mountain etc.</li><li>• Conversation over Telephone</li></ul>	Hours 15	Marks 25

<ul style="list-style-type: none"><li>• Writing practices</li><li>• Sentence making (Nominal and Verbal sentences)</li><li>• Use of Demonstrative pronoun</li><li>• Parts of speeches</li></ul>		
<b>Unit- III: vocabulary enrichment and Arabic conversation</b> <ul style="list-style-type: none"><li>• Relatives: Father, Mother, Brother and Sister etc.</li><li>• Nature: Son, Moon, Earth, River, Mountain etc.</li><li>• Conversation over Telephone</li><li>• Conversation at Educational Institutions</li><li>• Conversation at the class room</li><li>• Conversation at Market, Pharmacy and post office etc.</li></ul>	Hours 15	Marks 25

**Suggested Readings**

1. A Practical Approach to the Arabic Language vol. I by Wali Akhtar Nadwi
2. The essential Arabic by Prof. Rafiul Imad Faynan
3. Arabic made Easy by Abul Hashim
4. Teach Yourself Arabic by Prof. Syed Ahsanur Rahman
5. Asomiya Arabi Bayakaran by Muhammad Haydor Ali
6. Arabic for Beginners by S. Ali

*Wali  
HOD, Arabic*

Prepared by  
Department of Arabic  
Nabajyoti College, Kalgachia

**Serial No-107**  
**Food Chemistry**  
**SEC0310703**  
**(By Nabajyoti College)**

**B.SC. IN CHEMISTRY**  
**DETAILED SYLLABUS OF 3<sup>rd</sup> SEMESTER**  
**Skill Enhancement Course (SEC)**

**Title of the Course** : Food Chemistry  
**Course Code** :  
**Total Credits** : 3 (Theory-02+ Practical-01)  
**Distribution of Marks** : 30 (End Sem)+20(In-Sem)+25 (Practical)

**COURSE OBJECTIVES:**

The course introduces students to some of the fascinating food products' chemistry. The goal of this course is to explain food packing, processing, and preservation while keeping in mind the significance of the food business.


UNITS	CONTENTS	L	T	P	Total Hours
<b>I</b> (10 Marks)	<b>Food additives:</b> Food preservatives like benzoates, propionates, sorbates, disulphites. Artificial sweeteners such as aspartame, saccharin, dulcin, sucralose, and sodium cyclamate. And Flavors including vanillin, alkyl esters (fruit flavors), and monosodium glutamate.	10	0	-	10
<b>II</b> (10 Marks)	<b>Food adulterants, and contaminants:</b> Definition and significance of food adulteration; adulterants found in coffee, tea, milk, cereals, spices, and food coloring; Distinction between contamination and adulteration of food.	10	0	-	10
<b>III</b> (10 Marks)	<b>Artificial food colorants:</b> Artificial and natural colors, inorganic pigments, flavoring agents, application of colors in food industry, Coal tar dyes and non-permitted colors and metallic salts	10	0	-	10
<b>IV</b> (25 Marks)	<b>Practical/Experimental Work:</b> (i) Determination of adulterants in milk (ii) Determination of adulterants in turmeric powder (iii) Project Work				
	<b>Total</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>45</b>

**SUGGESTED BOOKS:**

1. Food Science & Quality Control by SMT. B. Poornima-Centrum Press First edition 2014.
2. Post-Harvest Management of Horticultural crops-S. Saraswathy, T.L.Preethi AGROBIOS (India) 2013.
3. A Handbook of Agn. Food processing and marketing by S. C. Gaur, Agro Bios (India) 2012.
4. Quality Control for value edition in Food processing-by Dev Raj, Rakesh Sharma & V.K. Joshi New India Publishing Agency, 2011.
5. Food processing and preservation-Subbulakshmi, G.Shobha, A.Udipi, NewAge International (P) Ltd., 2006.

Prepared By

Nabajyoti College, Kalgachia

  
 HOD  
 Dept. of Chemistry  
 Nabajyoti College, Kalgachia



**Serial No-108**  
**Electrical and Electronic Skill**  
**SEC0310803**  
**(By Nabajyoti College)**

**Skill Enhancement Course (SEC)**  
**Electrical and Electronic Skill**  
**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 20
  - a. Theory Credit 02
  - b. Practical Credit 01
  - c. No. of Required Classes 30 hours (Theory) + 30 hours (Practical)
  - d. No. of Non-Contact Classes 00
  - e. Particulars of Course Designer Department of Physics, Nabajyoti College, Kalgachia

**Learning Objectives:**

The Electrical and Electronic Skills course aims to equip students with foundational knowledge and practical skills in electrical circuit analysis, design, and installation, along with an understanding of electronic components, safety standards, and maintenance. It prepares learners for power, automation, and electronics work.

**Learning Outcomes:**

The learning outcomes of the Electrical and Electronic Skills course include the ability to design, analyze, and troubleshoot electrical circuits, and proficiency in using electronic components and tools while adhering to safety standards. Graduates are prepared for roles in power systems, electronics, and automation.

**THEORY:**

<b>Unit I: Introduction</b> Measuring units, conversion to SI and CGS, Familiarization with meter scale, Vernier calliper, Screw gauge and their utility, Measure the dimension of a solid block, the volume of cylindrical beaker/glass, the diameter of a thin wire, the thickness of the metal sheet, etc.	Hours: 4	Marks: 8
<b>Unit II: Electrical and Electronic Skill</b> Use of a Multimeter, soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB, operation	Hours: 10	Marks: 10



of the oscilloscope, Making regulated power supply, Timer circuit, and electronic switch using transistor and relay.		
<b>Unit II: Light Emitting Diode (LED)</b> Introduction to LEDs, what is an LED, principle of operation, advantages of LEDs, LED characteristics and types, current and voltage characteristics, different types of LEDs, application of LEDs.	Hours: 16	Marks: 12
<b>Total</b>	Hours: 30	Marks: 30

**PRACTICAL:**

<ol style="list-style-type: none"> <li>1. Study the use of a meter scale, Vernier calliper, and Screw Gauge.</li> <li>2. To measure the dimensions of the solid block, the volume of the cylindrical beaker/ glass, the diameter of the thin wire, thickness of the metal sheet.</li> <li>3. Study the use of a multimeter and oscilloscope.</li> <li>4. To use soldering of electrical circuits having discrete components on PCB.</li> <li>5. Basic LED Circuit Assembly: <ul style="list-style-type: none"> <li>• Required components: LED, resistor, power supply.</li> <li>• Step-by-step guide to connecting and powering an LED.</li> <li>• Demonstrate proper current limiting using resistors.</li> </ul> </li> <li>6. LED Color Control:</li> </ol>	Hours: 30	Marks: 25
---	-----------	-----------

**PRACTICAL:**

<ol style="list-style-type: none"> <li>1. Study the use of a meter scale, Vernier calliper, and Screw Gauge.</li> <li>2. To measure the dimensions of the solid block, the volume of the cylindrical beaker/ glass, the diameter of the thin wire, thickness of the metal sheet.</li> <li>3. Study the use of a multimeter and oscilloscope.</li> <li>4. To use soldering of electrical circuits having discrete components on PCB.</li> <li>5. Basic LED Circuit Assembly: <ul style="list-style-type: none"> <li>• Required components: LED, resistor, power supply.</li> <li>• Step-by-step guide to connecting and powering an LED.</li> <li>• Demonstrate proper current limiting using resistors.</li> </ul> </li> <li>6. LED Color Control: <ul style="list-style-type: none"> <li>• Demonstrate the use of RGB LEDs and varying light intensity with pulse-width modulation (PWM).</li> </ul> </li> </ol>	Hours: 30	Marks: 25
---	-----------	-----------

**Suggested Readings**

1. A textbook in Electrical Technology-B L Theraja – S. Chand and Company.
2. New Engineering Technology, Lawrence Smyth/Liam Hennessy, The Educational Company of Ireland [ISBN: 0861674480].
3. "Practical Electronics for Inventors" by Paul Scherz and Simon Monk.

.....

20/08/24

**Serial No-109**  
**Vermicomposting: Principles and Practices**  
**SEC0310903**  
**(By Nabajyoti College)**

*Skill Enhancement Course (SEC)*  
**Vermicomposting: Principles and Practices**  
BSC Sem-III ZOO-SEC  
Credit: 3 (Marks: 75)

**Course Description:**

This course explores the biological, chemical, and environmental aspects of vermicomposting, a sustainable waste management practice using earthworms to convert organic waste into nutrient-rich compost. The course covers the principles, techniques, and applications of vermicomposting in agriculture, horticulture, and environmental management.

**Course Objectives:**

- Understand the role of vermicomposting in sustainable agriculture and waste management.
- Learn the biology and ecology of earthworms used in vermicomposting.
- Gain hands-on experience in setting up and managing vermicomposting systems.

**Learning Outcomes:**

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

1. Explain the process of vermicomposting and the role of earthworms.
2. Identify suitable feed stocks and conditions for effective vermicomposting.
3. Manage and maintain a vermicomposting system.
4. Evaluate the quality of vermicompost and its application in agriculture.

**Course Structure:**

**THEORY:**

**UNIT 1: Introduction to Vermicomposting**

History and development of vermicomposting, Importance of organic waste management, Overview of the vermicomposting process, Species of earthworms used in vermicomposting

**UNIT 2: Vermicomposting Systems**

Types of vermicomposting systems (bins, windrows, and continuous flow), Design and setup of a vermicomposting unit, Environmental conditions required for vermicomposting (temperature, moisture, and pH)

**Learning Outcomes:**

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

1. Explain the process of vermicomposting and the role of earthworms.
2. Identify suitable feed stocks and conditions for effective vermicomposting.
3. Manage and maintain a vermicomposting system.
4. Evaluate the quality of vermicompost and its application in agriculture.

**Course Structure:**

**THEORY:**

**UNIT 1: Introduction to Vermicomposting**

History and development of vermicomposting, Importance of organic waste management, Overview of the vermicomposting process, Species of earthworms used in vermicomposting

**UNIT 2: Vermicomposting Systems**

Types of vermicomposting systems (bins, windrows, and continuous flow), Design and setup of a vermicomposting unit, Environmental conditions required for vermicomposting (temperature, moisture, and pH)

**UNIT 3: Vermicomposting Process**

Breakdown of organic material by earthworms, Role of microorganisms in vermicomposting, Monitoring and managing the vermicomposting process

**UNIT 4: Harvesting and Post-processing**

Harvesting vermicompost, Sieving and curing of vermicompost, Packaging and storage of vermicompost

**UNIT 5: Applications of Vermicompost**

Use of vermicompost in agriculture and horticulture.

**PRACTICALS:**

1. Identification and study of earthworm species
2. Setting up a small-scale vermicomposting unit
3. Application of vermicompost to plants and observation of effects
4. Group discussion on case studies related to challenges in vermicomposting

**Recommended Textbooks:**

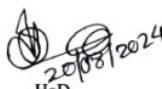
- *Vermiculture Technology: Earthworms, Organic Wastes, and Environmental Management* by Clive A. Edwards, Norman Q. Arancon, Rhonda Sherman

- *The Earthworm Book: How to Raise and Use Earthworms for Your Farm and Garden* by Jerry Minnich

**Additional Resources:**

- Research papers, articles, and case studies provided during the course.
- Access to online vermicomposting communities and forums.

Prepared by the department of Zoology  
Nabajyoti College, Kalgachia

  
HoD  
Department of Zoology,  
Nabajyoti College, Kalgachia  
Department of Zoology  
Nabajyoti College, Kalgachia

## **Serial No-110**

### **Economics**

**SEC0311003**

**(By Nabajyoti**

Skill Enhancement Course

Economics

3<sup>rd</sup> Semester

Credit : 3

Total mark: 75 (Theory: 45, Internal assessment: 30)

Course Description: This course helps students in understanding the basic use of data along with the appropriate knowledge of summarizing and analyzing data for drawing statistical inferences. Students will be trained in the use of statistical software like SPSS/PSPP to analyze data.

Unit: 1 Data in Social Sciences, Types and sources of Data, Methods of Data collection, Population Census Vs Sample Survey, Types of Sampling.

Marks : 10

Number of classes: 10

Unit: 2 Measures of Central Tendency – Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode. Measures of Dispersion- Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance.

Marks : 25

Number of classes: 20

Unit: 3 Correlation- Pattern of co relation, Regression analysis, Relationship between correlation coefficient and regression coefficient.

Marks : 20

Number of classes: 10

Unit: 4 Data Entry in software like MS Excel, SPSS/PSPP.

Marks : 20

Number of classes: 20

**College)**

Unit: 1 Data in Social Sciences, Types and sources of Data, Methods of Data collection, Population Census Vs Sample Survey, Types of Sampling.

Marks : 10

Number of classes: 10

Unit: 2 Measures of Central Tendency – Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode. Measures of Dispersion- Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance.

Marks : 25

Number of classes: 20

Unit: 3 Correlation- Pattern of co relation, Regression analysis, Relationship between correlation coefficient and regression coefficient.

Marks : 20

Number of classes: 10

Unit: 4 Data Entry in software like MS Excel, SPSS/PSPP.

Marks : 20

Number of classes: 20

*[Signature]*  
5/20/2024  
HoD  
Economics  
Nabanyoti College, Kalgachia

**Serial No-111**  
**Culture and Heritage of North East India**  
**SEC0311003**  
**(By Nabajyoti College)**

Syllabus for Semester –III

Skill Enhancement Course

**Title: Culture and Heritage of North East India**

Theory = 2 credit, Practical = 1 credit

Total Mark -75 Theory- 30 Practical -- 45



**Learning Objective:** This course enables students to explore various aspects of the cultural heritage and cultural diversity to historical perspective that discusses numerous the cultural practices that have evolved over the centuries. They will acquire knowledge of the changing socio-cultural scenario of North East. Additionally gather knowledge about the multifaceted cultural heritage, forms and expressions like performing arts, fairs and festivals.

- a) To introduce the students to the core aspects of the Culture of North East.
- b) To make them aware of the multiple facets of Assamese culture.
- c) To sensitise students to the rich culture and heritage of North East.
- d) To enable the students to understand the importance of our heritage.
- e) To encourage the students to view our traditions and values in the right perspective which will help the map appreciate diverse cultural values.

**Course Outcomes:**

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

- a) While discussing history and culture students will be able to recognize the history of North-East culture as part of the large story of humankind and civilisation over the ages.
- b) Get to know the diversity of our cultural heritage to understand and appreciate the legacy. It will also provide them with a sense of the expanse of time over which this legacy has grown.
- c) To explain several historical currents that have harmonized to create a rich multicultural society.

**Unit wise Syllabus**

<b>Unit—I: Culture and Heritage</b> a) Definition and Characteristics of Culture b) Tangible and intangible heritage, Tangible, intangible Oral and Living traditions. c) Tai-Phakeor Phakial culture	<b>(5 hours) Mark-7</b>
--	-------------------------

<b>Unit II: Colonial Heritage and UNESCO Heritage Sites in Northeast India</b> Satribari Christian Hospital, 1926. b) Assam Medical College, Digboi Oil Refinery, Charaideo Maidams, Garo-Hills c) Apatani Cultural Landscape.	<b>(5 hours) Mark-5</b>
---	-------------------------

<b>Unit—III</b> <b>Traditional Performing Art as Intangible Heritage</b> a) Folk Dance— Bagurumba Hozagiri ,Wangala, Bamboo dance, Zeliang dance, Dhol Dholak Chalom. c) Folk Theatre: Oja Pali, Dhuliya and Khuliya-bhaoriya, Puppetry, -Kushan Gan Shumang Leela, Bharigaan Gahon d) Folk Song- Goalpara folk song, Nongthang Leima' Lullabies. e) Oral Folk Literature-Lyrics, Ballads, DÁKAR BACHAN, Folk tales.	<b>(6 hours) Mark- 9</b>
---	--------------------------

<b>Unit—IV: Neo-Vaishnavite Cultures—Majuli</b>
---

<b>Unit—IV: Neo-Vaishnavite Cultures—Majuli</b> a) Satra and Namghar b) Ankiya Bhaona and Satriya Nritya	<b>(6 hours) Mark- 9</b>
--	--------------------------

**PRACTICAL (22 hours) Mark-45**

Assignments

Field work

Project work


Presentation

Report writing

Preparation of questionnaire

**References:**

1. Barua B.K.: A Cultural History of Assam,
2. Sarma, S.N.: The Neo-Vaishnavite Movement and the Satra Institution of Assamese Department of Publication, Gauhati University, 1966.
3. Sarma, S.N.: Socio Economic and Cultural History of Medieval Assam, Guwahati, 1989.
4. Nath, R.M.: The Background of Assamese Culture, Guwahati, 1978.
5. Sarma. C.P.: Architecture of Assam, Delhi – 1988
6. Ahmed, Kama'uddin: The Art and Architecture of Assam, Spectrum Publication, Guwahati, 1994.
7. Bhattacharya, P.: Tourism in Assam, Bani Mandir, Guwahati, 2004.
8. Neog, M. :PavitraAsom,LBS, Guwahati : Asamiya Sanskritir Ruprekha, Guwahati – 1970
9. Boruah, P. :Chitra-BichitraAsom, Guwahati, 2003; Taher&Ahmed : Geography of North East India, Mani Manik Prakash, Guwahati, 2010.

  
 HoD  
 Dept. of History  
 Nabajyoti College, Kalgachia  
 History  
 Nabajyoti College, Kalgachia



**Serial No-112**  
**R Programming**  
**SEC0311203**  
**(By ADP College)**

**PAPER NAME: R Programming**

**Total Credits: 3 (Theory:2+ Practical 1)**

**THEORY**

**Total Lectures: 30**

**COURSE OBJECTIVES:**

The purpose of this course is to help using **R**, a powerful free software statistical computing and graphics. It can be used for exploring and plotting performing statistical tests.

**COURSE OUTCOME:**

After studying this course, the students will be able to:

- a) Become familiar with **R** syntax and to use **R** as a calculator.
- b) Understand the concept of objects, vectors and data types.
- c) Know about summary commands and summary table in **R**.
- d) Visualize distribution of data in **R** and learn about normality test.

**Unit 1: Getting Started with R- The Statistical Programming Language**

Introducing **R**, using **R** as a calculator; explore data and relationships in **R**; data into **R**: combine and scan commands, viewing named objects and **R**, types and structures of data items with their properties, working with saving work in **R**; manipulating vectors, data frames, matrices and lists; view objects, constructing data objects and their conversions.

**Unit 1: Getting Started with R- The Statistical Programming Language**

Introducing **R**, using **R** as a calculator; explore data and relationships in **R**; data into **R**: combine and scan commands, viewing named objects and **R**, types and structures of data items with their properties, working with saving work in **R**; manipulating vectors, data frames, matrices and lists; view objects, constructing data objects and their conversions.

**Unit 2: Descriptive Statistics and Tabulation (Lectures:10)**

Summary commands: Summary statistics for vectors, data frames, matrices tables.

**Unit 3: Distribution of Data (Lectures: 10)**

Stem and leaf plot, Histograms, Density function and its plotting, The Sh normality, The Kolmogorov- Smirnov test.

[1] Chapter 14 (Exercises 1 to 3)

[2] Relevant exercises of Chapters 2 to 5.

**PRACTICAL: (Hours 15)**

**At least six practicals should be done by each student.**

**BOOKS RECOMMENDED:**

1. Bindner, D. & Erickson, M. (2011): *A Student's Guide to the Study, of Modern Mathematics*, CRC Press, Taylor & Francis Group, LLC
2. Gardener, M. (2012): *Beginning R: The Statistical Programming Publications.*



**Serial No-113**

**Database Management System**

**SEC0311303**

**(By ADP College)**

**Course Name: SEC Database Management System**

Credit 03

Credit distribution: Theory- 2, Practical- 1

Distribution of Marks-

End Semester Examination: 30

Sessional Exam: 20

Practical Exam: 25

Course designer: Dept of Computer Science, ADP College, Nagaon, Assam

Content:

Target group: Student from all disciplines of semester III

Learning objective:

- To understand the core concepts of databases, their structure, and managing information, and importance of data integrity, consistency in database systems.
- To learn about different database models and normalization techniques.
- Acquire proficiency in Structured Query Language (SQL), learn insert and delete database tables, data manipulation commands.
- Develop skills in querying data.

Learning outcome:

Student will develop an understanding of database concept and DBMS systems, acquire knowledge and develop a solid foundation in basic database management and gain practical skills in using SQL to interact with databases.

Unit 2- Physical Data Independence and Logical data Independence. The evolution of DBMS, Advantages of three-level Architecture, basic concepts and characteristics of Data Models,

Unit 3- Relational Models, Relational DBMS, RDBMS terminology, primary key, functional dependencies, Normal forms (1NF, 2NF, 3NF)

Unit 4- Database Languages (Data Definition Languages, Data Manipulation Languages) Characteristics of SQL, Basic data types in SQL, Data-definition commands: Create Database, Create Table, Drop Table, Alter Table Primary Key, Foreign Key, Not Null, Unique, Check, Default, Data Manipulation (DML) commands: Insert Into, Delete, Select, Update.

Practical- Hours 30, Marks 25

Practical / Lab work to be performed:

- Implementation of SQL DDL statements in MySQL DBMS:

Practical / Lab work to be performed:

- Implementation of SQL DDL statements in MySQL DBMS: CREATE, ALTER TABLE, RENAME, DROP TABLE
- Use of SQL DML statements in MySQL DBMS: INSERT, SELECT, UPDATE, DELETE.
- Implementing following constraints in MySQL DBMS: PRIMARY KEY, NOT NULL, UNIQUE and DEFAULT
- Handling following SQL clauses in MySQL DBMS: WHERE, GROUP BY, HAVING, IN, BETWEEN, LIKE
- Working with following aggregate functions in MySQL DBMS: MAX, MIN and SUM

#### BOOKS RECOMMENDED

1. R. Elmasri, S.B. Navathe, **Fundamentals of Database Systems**, Pearson Education
2. Dr. Rajive Chopra, **Database Management System (DBMS): A Practical Approach**, S.Chand Publication
3. NEILIT (DOEACC) A level- Introduction to DBMS.

**Serial No-114**  
**Applied Optics**  
**SEC0311403**  
**(By ADP College)**

**Skill Enhancement Course (SEC)**  
**(Physics)**

**APPLIED OPTICS**

**Credits: 3 (Marks: 75)**

Theory Credit : 02

Practical Credit : 01

Number of required classes: 30 hrs (Theory) + 30 hrs (Practical)

Particulars of Course designer: Department of Physics, Anandaram Dhekiyal Phook

**THEORY**

<b>Unit I: Laser</b> Lasers, Spontaneous and stimulated emissions, Theory of laser action: Population and Population inversion, Pumping, Einstein's coefficients, Light amplification, Basic components of laser, Characterization of laser beam, Types of lasers, He-Ne laser, Ruby laser, Semiconductor lasers.	Lecture
<b>Unit II: Holography</b> Basic principle of holography, Requirements in making holography, Types of holograms, white light reflection hologram, application of holography.	Lecture

<b>Unit III: Interferometry</b> Basic principle and theory of Michelson interferometer and Fabry Perot interferometer.	Lect
<b>Unit IV: Photonics: Fibre Optics</b> Optical fibres and their properties, Principal of light propagation through a fibre, The numerical aperture, Types of optical fibres, Single mode and multimode fibres, Multimode graded index fibre, Attenuation in optical fibre and attenuation limit, Losses, Fibre optic communication link (FOCL), Fibre optic sensors.	Lect

#### PRACTICAL

##### *Experiments:*

1. To find the width of the wire or width of the slit using diffraction pattern obtained by a He-Ne or solid-state laser.
2. To determine the wavelength of He-Ne laser or solid-state laser using reflection grating or compact disc or material of regular grooves.
3. To find the wavelength of laser source using diffraction grating and find angular spread.
4. To determine the divergence of given He-Ne laser or solid-state laser source.
5. To find the polarization angle of laser light using polarizer and analyzer.
6. To measure the numerical aperture and acceptance angle of an optical fibre.
7. To study the variation of the bending loss in a multimode fibre.
8. To study the transmission of light through an optical fibre and detection.
9. Determination of wavelength of monochromatic light by Michelson interferometer.
10. Determination of wavelength of monochromatic light by Fabry interferometer.

#### Suggested Readings:

- [1] Fundamental of optics, F. A. Jenkins & H. E. White, 1981, Tata McGraw Hill.
- [2] LASERS: Fundamentals & applications, K.Thyagrajan & A.K.Ghatak, 2010, PHI Learning Pvt. Ltd.
- [3] Fibre optics through experiments, M.R. Shenoy, S.K.Khijwania, et.al. 2009, PHI Learning Pvt. Ltd.
- [4] Nonlinear Optics, Robert W. Boyd, (Chapter-I), 2008, Elsevier.
- [5] Optics, Karl Dieter Moller, Learning by computing with model examples, 2008, PHI Learning Pvt. Ltd.
- [6] Optical Systems and Processes, Joseph Shamir, 2009, PHI Learning Pvt. Ltd.
- [7] Optoelectronic Devices and Systems, S.C. Gupta, 2005, PHI Learning Pvt. Ltd.
- [8] Optical Physics, A.Lipson, S.G.Lipson, H.Lipson, 4th Edn., 1996, Cambridge University Press.

**Serial No-114**  
**Applied Optics**  
**SEC0311403**  
**(By Dhing College)**

DEPARTMENT OF PHYSICS

DHING COLLEGE

Syllabus for 3<sup>rd</sup> Sem (FYUGP) Skill Enhancement Course (SEC)

Sub: PHYSICS

Course Title: APPLIED OPTICS

Credits:3 (Theory-2 Lab: 1)

Total Marks: 75

Distribution of marks

- a. End Sem Examination: 30
- b. Practical: 25
- c. Sessional Exam: 20

No of required Classes: Theory—30 hours + Lab---15 hours

Theory

Unit1: Lasers

Lasers, Spontaneous and Stimulated emission, Theory of laser action, Einstein's coefficients, light amplification, Characterization of laser beam, He-Ne laser, Semiconductor Laser, Ruby Laser.

Unit 2: Holography

Basic principle and theory: Coherence, resolution, types of holograms, white light reflection hologram, application of holography in microscopy, interferometry and character recognition.

Unit 3: Fibre optics

Optical fibres and their properties, principal of light propagation through fibre, the numerical aperture, attenuation in fibre optics and attenuation limit, single and multimode fibres, Fibre optic sensors: Fibre Bragg Grating.

Lasers, Spontaneous and Stimulated emission, Theory of laser action, Einstein's coefficients, light amplification, Characterization of laser beam, He-Ne laser, Semiconductor Laser, Ruby Laser.

Unit 2: Holography


Basic principle and theory: Coherence, resolution, types of holograms, white light reflection hologram, application of holography in microscopy, interferometry and character recognition.

Unit 3: Fibre optics

Optical fibres and their properties, principal of light propagation through fibre, the numerical aperture, attenuation in fibre optics and attenuation limit, single and multimode fibres, Fibre optic sensors: Fibre Bragg Grating.

Laboratory Experiments:

1. To find the polarization angle using polarizer and analyzer.
2. To find the width of the wire or width of the slit using diffraction pattern obtain by a He-Ne or solid-state laser.
3. To study the V-I characteristic of LED
4. To study the characteristic of solid-state laser
5. Constructing a Michelson interferometer and a febyr-perot interferometer.
6. To measure the numerical aperture of an optical fibre.

  
Head of the Department  
Physics, Dhing College  
Dhing, Nagaon



**Serial No-115**

**Dramatic Performance: Theory and Practice**

**SEC0311503**

**(By ADP College)**

**Skill Enhancement Course (SEC)**

**3<sup>rd</sup> Semester**

**Dramatic Performance: Theory and Practice**

**Credits: 3 (Theory 2, Practical 1)**

**Marks: 75**

**Distribution of Marks:**

End semester Examination: 30 marks

Sessional Examination: 20 marks

Practical: 25 marks

**Introduction:**

'Dramatic Performance: Theory and Practices' is designed to immerse students in the dynamic world of drama. This course bridges the gap between the rich theoretical world of dramatic performances and hands-on practical applications. Throughout a course of theory, workshop, and performance project, the learners will develop a comprehensive understanding of dramatic performance, theories pertaining to it and prepare themselves for professional pursuit in the theatre. It will facilitate students to have a discourse on traditional and contemporary world theatre besides imparting to them an interdisciplinary approach encompassing other artistic creations.

**Learning Objective:**

- To encourage the study of drama and theatrical performances.

**Course outcomes:**

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

- Understand the key theories and methodologies underpinning dramatic
- Critically analyse various dramatic text and performance.
- Develop acting techniques such as voice modulation, body movement etc.
- Plan and perform scenes and monologues from variety of dramatic text
- Prepare for advanced studies or professional opportunities in theatre
- Develop their overall personality.

**Unit- I: Basics of Drama (1 Credit, 15 Classes)**

- Concepts and characteristics of drama
- Drama as a performing art
- Basic tools of drama and acting
- The Plot or dramatic structure in drama
- Characterization in drama

- Posture, Gesture & Movement

**Unit- III: Modern Indian Drama: Reading and Practice (1 Credit, 30 Classes)**

- Jyotiprasad Agarwala
- Bijoy Tendulkar
- Girish Karnad
- Bijan Bhattacharya
- Mohan Rakesh

**Reference Books:**

1. Allain, Paul & Harvie, Jen (2006). *The Routledge Companion to Theatre*. Routledge. New York.
2. Bharata Muni (1956). *Natyastra*. (M. Ghosh, Trans), Manisha Gran
3. Boulton, Marjorie (2015). *The Anatomy of Drama*. Routledge Revival
4. Brandon, J.R., & Banham, M. (1997). *The Cambridge Guide to Asian* University Press
5. Chakraborti, Dipa & Kumar, Manoj (2021). *Dimensions of Theatre and Perspectives*. Ykins Publisher.
6. Chekhov, Michael (1991). *On the Technique of Acting*. Harperperenni
7. Kastuar, Jayant (2023). *Indian Drama in Retrospect*. Motilal Banarsid
8. Krutch, Joseph Wood (). *Modernism in Modern Drama: A Definitive* Publication, New Delhi.
9. Lal, Ananda (2023). *Theatres of India- A Concise Companion*. Oxford
10. Sharma, Dr. Satyendranath (2005). *Asomiya Natya Sahitya*. Soumer P

**Serial No-116**

**Basic Understanding of Maps**

**SEC0311603**

**(By ADP College)**

**Syllabus BA/BSc. 3<sup>rd</sup> Semester**

**Skill Enhancement Course (SEC)**

**Course Name: Basic Understanding of Maps**

Credits: 03 (Marks: 75)

**Distribution of Marks:**

1. End Semester Examination: Total marks:	45
2. Sessional Examination: Total Marks:	30
➤ Total Credit	03
➤ No. of classes required	45 hours (Theory)
➤ No. of Non-contact Classes	00
➤ Particulars of Course Designer	Department of Geogr

**Learning objectives:**

This course on “Basic Understanding of Maps” provides a general understanding of map-making and reading techniques and their importance in geographic study. This course covers various types of maps, map scale, basic concepts related to maps such as the earth, co-ordinate system, concept of latitude and longitude, basic principles and types of map projection and techniques associated with map-making, use of data, themes in thematic maps, reading of topographical maps, weather and climate, and understanding of basic concepts of GIS and GPS in geography.



- Understanding of techniques of data representation in thematic maps
- Understanding of topographical maps and weather maps
- General understanding of concepts of GIS and GPS

**Course Content:**

**Unit 1: Understanding maps and Co-ordinate system**

- Maps: Meaning and types; uses in Geography
- Shape and Size of the earth; Concept of Geographic Co-ordinate system, Latitude, Longitude & Time.
- Map Scale: Types of scale & symbols in maps
- Map projection: Basic principles & types

**Unit 2: Interpretation of maps**

- Thematic Map: Meaning and types of thematic map

**Suggested Readings:**

1. Singh R.L. & Singh R.P.B (1999): Elements of Practical Geography, Kalya
2. Mishra R.P. & Ramesh A. (1989): Fundamentals of Cartography, (Company, New Delhi
3. Sarkar A. (2015): Practical Geography: A systematic Approach; Orient E New Delhi
4. Singh L.R. (2013): Fundamentals of Practical Geography: Sharda Allahabad
5. Sharma J.P. (2023): Outlines of Practical Geography, Rastogi Publicatio
6. Saikia R & Thakuria G (2015): Practical Geography: EBH Publishers, Guw
7. Talukdar S. (2008): Introduction to Map Projection, EBH Publishers, Gu

## Serial No-117

### Entrepreneurship Development

Sec0311703

(By Adp College)

**SKILL ENHANCEMENT COURSE (SEC)  
3<sup>RD</sup> SEMESTER (UNDER FYUGP)  
ENTREPRENEURSHIP DEVELOPMENT  
CREDIT: 3 (MARKS: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks	30
2. Sessional Examination: Total Marks:	20
3. Practical Total Marks:	25
➤ Theory Credit	02
➤ Practical Credit	01
➤ No. of Required Classes:	30 hours (Theoretical) (Practical)
➤ Particulars of Course designer:	Dr. Nirmala Devi Economics, ADP

**Learning Objectives:**

1. To develop basic entrepreneurial skills.
2. To make the students learn about role of creativity and innovation starts ups.
3. To learn a means of self-employment and income generation.
4. To gain practical experience by field survey.
7. To gain practical experience by field survey.

**Learning Outcomes**

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

1. Apply the entrepreneurial qualities and skills in their practical life.
2. Develop leadership skills to build a new enterprise or start up.
3. To prepare project report.
4. Students will be familiar with knowledge about business and starting new ventures.
5. Learn the way of self-employment and income generation.

**THEORY**

<b>Unit 1: Entrepreneurship</b>	Ho
Entrepreneur: Meaning, characteristics, types and functions of entrepreneurs. Entrepreneurship: Concept of entrepreneurship.	07

types of entrepreneurship, factors promoting entrepreneurship, role of entrepreneurship in economic development. Barriers to entrepreneurship, stages in entrepreneurial process.	
<b>Unit 2: Theories of Entrepreneurship:</b> Framework of entrepreneurial theories, Innovation theory, Social Change Theory, Trait theory of entrepreneurship, Economic Theory of Entrepreneurship.	05
<b>Unit 3:Market Survey Techniques:</b> Market assessment: tools and techniques. Methods of market survey and sources of market information. Presentation of market survey report. SWOT Analysis: Introduction and Meaning. Advantages of SWOT analysis	06
<b>Unit 4: Business Plan and Project:</b> Meaning of business plan, business plan preparation and project financing. Advantages of business planning. Market feasibility, technical feasibility and financial viability. Model Project report preparation for starting a new venture.	07
<b>Unit 5: Accounting for entrepreneurs:</b> Introduction to accounting, profit and loss accounting. Cash book maintenance and preparation of balance sheet.	05

<b>PRACTICAL</b>	<b>Hours</b>
------------------	--------------

Introduction to accounting, profit and loss accounting. Cash book maintenance and preparation of balance sheet.	05
---	----

<b>PRACTICAL</b>	<b>Hours</b>
1. Industrial visits	10
2. Formulation of projects	10
3. Market survey	10

**Suggested Readings:**

1. Khanka S.S (2001) Entrepreneurship Development, S. Chand & Co
2. Gupta CB, Srinivasan NP (2013) Entrepreneurship Development in Cases, Sultan Chand and Sons, New Delhi.
3. Desai Vasant (2014), Fundamentals of Entrepreneurship and Small Management, Himalaya Publishing House.
4. Sofar, Rajni and Hiro, Preeti (2016) Basic Accounting, PHI, New
5. Maheswari SN (1993) Management Accounting and Financial Control and Sons, New Delhi.
6. Chandra P Projects (1987): Preparation, Appraisal, Budgeting and Control, Tata McGraw Hill, New Delhi .
7. Sharma S Entrepreneurship Development (2016), PHE Learning P

**Serial No-118**  
**Nursery Techniques and Practices**  
**Sec0311803**  
**(By ADP College)**

**Skill Enhancement Course (SEC)**

**3<sup>rd</sup> Semester**

**Nursery Techniques and Practices**

**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

(Particulars of Course Designer Department of Botany, AI

**Learning objectives:**

- Understand the basics of gardening and its various practices
- Provide hands on training for the preparation of seedbed preparation and Bonsai
- Help the students to learn a means of self-employment and income generation

**Learning outcomes:**

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

- Do good nursery practices
- Gain the knowledge of seedbed preparation, grafting and Bonsai
- Learn about infrastructure development and maintenance of Nursery
- Learn the way of self-employment and income generation

**Unit 1:** Nursery: definition, objectives and scope and building up of i  
nursery and gardening tools, planning and seasonal activities -  
seeding and transplants. Seed dormancy; causes and methc  
dormancy -Seed storage: Seed banks, factors affecting  
Cultivation methods of some common plants.

**Unit 2:** Vegetative propagation: air-layering, cutting, selection of ct  
season, treatment of cutting, rooting medium and planting  
Hardening of plants – green house -mist chamber, shed root, s  
glass house, Bonsai

**Unit 3:** Gardenino: definition, objectives and scope - different tvne

**Unit 3:** Gardening: definition, objectives and scope - different types  
landscape and home gardening - parks and its components - plan  
design. Gardening operations: soil laying, manuring, watering, r  
pests and diseases and harvesting.

**Practical (Credit : 1, total Class : 30 Hours)**

1. Nursery bed preparation and growth of seedlings in polybag
2. Bonsai, Grafting and air layering of economically important plant
3. Local Nursery visit

**Suggested Readings**

1. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & I  
Co., New Delhi.
2. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore
3. Edmond Musser & Andres, Fundamentals of Horticulture, McGraw  
New Delhi.
4. Agrawal P.K. 1993. Hand Book of Seed Technology. Dent of A



**Serial No-119**  
**Green Chemistry**  
**Sec0311903**  
**(By ADP College)**

**Four Years Undergraduate Program (FYUGP)**

**Semester III**

**SEC Course name: GREEN CHEMISTRY**

**Credit: 3 credits**

**Credit distribution: (Theory credit 2, Practical credit 1)**

Marks Distribution: End Semester Examination

Theory: 30

Internal: 20

Practical: 25

Department: Chemistry

Anandaram Dhekial Phookan College, Nagaon

Content

Course Objectives:

- To create awareness on the prominence of green chemistry among the
- To provide an understanding of utilization of green chemistry from a different perspective

- describe and evaluate chemical products and processes from an environmental perspective
- define and propose suitable solutions to mitigate the goals of green chemistry
- critically assess the methods for waste reduction and recycling.

**Theory**

Unit 1: Understanding Green Chemistry (*Marks 6*)

- a. Concept of Green Chemistry
- b. Importance of Green Chemistry
- c. Limitations/obstacles in the pursuit of the goals of green chemistry

Unit 2: Twelve Principles of Green Chemistry with their explanations and examples

Unit 2: Twelve Principles of Green Chemistry with their explanations and  
(Marks 8)

Unit 3: Applications of Green Chemistry principles in everyday life. (Mark

- a. Green dry cleaning of clothes
- b. Versatile bleaching agents
- c. Green solution to turn turbid water clear
- d. A green synthesis of ibuprofen which creates less waste and fewer  
Economy)

Unit 4: Introduction to green solvents (Marks 6)

- a. Strategies of solvent replacement
- b. Characteristics of ideal solvent
- c. No-solvent systems, water as solvent, classical green solvents.

**Lab (Marks 25)**

1. Preparation of biodiesel from vegetable oil
2. Preparation of propene by following method (atom economy)  
$$\text{1-propanol} + \text{H}_2\text{SO}_4 \xrightarrow{\Delta} \text{propene} + \text{water}$$
3. Photoreduction of benzophenone to benzopinacol in presence of su
4. Extraction of D-limonene from orange peel using liquid CO<sub>2</sub> prep

**Lab (Marks 25)**

1. Preparation of biodiesel from vegetable oil
2. Preparation of propene by following method (atom economy)  
$$\text{1-propanol} + \text{H}_2\text{SO}_4 \xrightarrow{\Delta} \text{propene} + \text{water}$$
3. Photoreduction of benzophenone to benzopinacol in presence of su
4. Extraction of D-limonene from orange peel using liquid CO<sub>2</sub> prepa
5. The vitamin C clock reaction using vitamin C tablets, tincture of i  
peroxide and liquid laundry starch.
  - (i) Effect of concentration on clock reaction
  - (ii) Effect of temperature on clock reaction

Suggested Readings:

1. V.K Ahluwalia & M.R. Kidwai: New Trends in green Chemistry, A  
Publishers, 2005
2. A.S. Matlack: Introduction to Green Chemistry, marcel Dekker, 20
3. Manahan, S.E., Environmental Chemistry, CRC Press, 2005
4. Miller, G.T., Environmental Science 11<sup>th</sup> edition, Brooks/Cole, 200
5. Mishra, A., Environmental Studies, Selective and Scientific Books.

**Serial No-119**  
**Green Chemistry**  
**Sec0311903**  
**(By Dhing College)**

**DEPARTMENT OF CHEMISTRY**  
**DHING COLLEGE**

Syllabus for 3<sup>rd</sup> Sem (FYUGP) Skill Enhancement Course (SEC)

Sub: Chemistry

Course Title: Green Chemistry

Credits:3 (Theory-2 Lab: 1)

Total Marks: 75 (Theory: 50+Practical: 25)

No. of required classes: 30 hrs (theory) + 30 hrs (practical)

Designed by Department of Chemistry, Dhing College

**Learning Objectives:-**

This course introduces students to the utilization of green chemistry from industrial perspective and provides exposure to methods by which environmental problems are evaluated and designing of sustainable solutions.

**Learning Outcomes:-**

Students shall be able to describe and evaluate chemical products and processes from environmental perspective, define and purpose sustainable solutions and critically assess the methods for waste reduction and recycling.

**Unit-I:-** Introduction to Green Chemistry

- What is Green Chemistry? Need for green chemistry. Goals of Green Chemistry. Limitations/Obstacles in the pursuit of the goals of Green Chemistry. 6 Hrs.

**Unit – II:-** Principle of Green Chemistry and designing a chemical synthesis.

- Designing a Green synthesis using these principals; Prevention of waste by products, maximum incorporation of the materials used in the process into the final products, Atom Economy, calculation of atom economy of the rearrangement, addition, substitution and elimination reactions.
- Prevention/ minimization of hazardous/ toxic products reducing toxicity risk (function) hazard exposure; waste or pollution, prevention hierarchy.
- Green Solvents – Super critical fluids, water as solvent for organic reactions, ionic liquids, fluoruous biphasic solvents and how to compare greenness of solvents.
- Energy requirements for reactions – alternative sources of energy: use of microwaves and ultrasonic energy. 12 Hrs

**Unit – III:-** Green synthesis of compounds.

- Synthesis of following compounds: adipic acid, catechol, BHT, methyl methacrylate, urethane, aromatic amines (4-aminodiphenylamine), benzyl bromide, acetaldehyde, disodium

**Unit – II:-** Principle of Green Chemistry and designing a chemical synthesis.

- Designing a Green synthesis using these principals; Prevention of waste by products, maximum incorporation of the materials used in the process into the final products, Atom Economy, calculation of atom economy of the rearrangement, addition, substitution and elimination reactions.
- Prevention/ minimization of hazardous/ toxic products reducing toxicity risk (function) hazard exposure; waste or pollution, prevention hierarchy.
- Green Solvents – Super critical fluids, water as solvent for organic reactions, ionic liquids, fluoruous biphasic solvents and how to compare greenness of solvents.
- Energy requirements for reactions – alternative sources of energy: use of microwaves and ultrasonic energy. 12 Hrs

**Unit – III:-** Green synthesis of compounds.

- Synthesis of following compounds: adipic acid, catechol, BHT, methyl methacrylate, urethane, aromatic amines (4-aminodiphenylamine), benzyl bromide, acetaldehyde, disodium iminodiacetate (alternative to Strecker synthesis), citral, ibuprofen, paracetamol, furfural. 6 Hrs

**Unit – IV:-** Microwave assisted reactions.

- Microwave assisted reactions in water: Hofmann elimination, Hydrolysis of benzyl chloride, benzamide, n-phenyl benzamide, methyl benzoate to benzoic acid, oxidation toluene and alcohols.
- Microwave assisted reactions in organic solvents: Esterification, Fries rearrangement, ortho-ester Claisen rearrangement; Diels – Alder reaction and Decarboxylation reaction. 6 Hrs

**PRACTICAL**

1. Identification of vitamin C in clock reaction. 30 Hrs
2. Preparation of Biodiesel
3. Green Synthesis of ethyl benzoate.
4. Diels – Alder reaction in water (Green Synthesis)

**Suggested Readings:**

1. Paul T. Anastas and John C. Warner, Green Chemistry, Theory and Practice, Oxford University Press, New York, 1998.
2. Kumar V., An Introduction to Green Chemistry, Vishal Publishing Company, Jalandhar – Delhi.
3. Paul T. Anastas, Tracy C. Williamson, Green Chemistry Frontiers in Benign, Chemical Synthesis and Processes, Oxford university Press, New York, 1998.
4. V.K. Ahluwalia and Renu Aggarwal, Organic Synthesis: Special Techniques, Narosha Publishing House, New Delhi, 2006

  
Principal  
Dhing College  
Dhing, Nagaon (Assam)

\*\*\*\*\*

  
19.8.21  
MOD  
Department of Chemistry  
Dhing College, Dhing



**Serial No-120**  
**Ornamental Fish and Aquarium Fish Keeping**  
**Sec0312003**  
**(By ADP College)**

**Skill Enhancement Course (SEC)**

**3<sup>rd</sup> Semester**

**Ornamental Fish and Aquarium Fish Keeping**

**Credits: 3 (Marks: 75)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30

2. Sessional Examination: Total Marks: 20

3. Practical: Total Marks: 25

Theory Credit 02

Practical Credit 01

No. of Required Classes 30 hours (Theory) + 30 hours (Practical)

No. of Non-Contact Classes -Nil

Particulars of Course Designer Department of Zoology, Anandaram Dhekial P  
Gauhati University

**Learning objectives:**

- To understand the basics of Aquarium Keeping by enabling student types aquarium
- To develop interest in Ornamental Fish and Aquarium keeping
- To know about ornamental fishes of North-East India
- Learn construction of aquarium and its management

- Know about Aquarium keeping
- Identify Ornamental Fish
- Gain Knowledge about Ornamental Fish and construction of Aquarium
- Manage disease related to ornamental fishes.

**Theory- Hours 30, Marks-50**

**Unit 1: Introduction to Aquarium Fish Keeping**

**Unit 1: Introduction to Aquarium Fish Keeping**

Aquarium, Types of Aquaria, Introduction to Ornamental Fish Keeping, Definition of the selection of Ornamental Fish for aquarium Keeping, Pre-requisites for Culture

**Unit 2: Ornamental Fish Diversity of North-East India**

Ornamental Fishes of North-East India, Varieties of aquarium fishes found in India, Indigenous and exotic ornamental fishes

**Unit 3: Construction and Management of Home Aquarium**

Design and construction of tanks depending on different species, Major aquaculture Physico-chemical parameters of aquarium keeping, General aquarium maintenance

**Unit 4: Strategies for maintenance of Natural Colour of Ornamental Fish**

Feed formulation of ornamental fish, Colour enhancing food for ornamental fish, influencing carotenoid deposition, Schooling behavior.

**Unit 5: Health Management of Ornamental Fish**

Quarantine protocols required to be followed for freshwater aquarium, common diseases of aquarium fishes, Disinfectant and antibiotics.

**Practicals- Hours 30, Marks -25.**

1. Identification of Ornamental Fishes

**Serial No-121**  
**Political Movements of Assam in Post-Independence Assam**  
**Sec0312103**  
**(By ADP College)**

Skill Enhancement Course (SEC)

**Political Movements of Assam in Post-Independence As**

Semester: Third Semester

Credit: 03 ( Total Marks: 75)

Distribution of Marks:

1. End Semester Examination: 30
2. Sessional Examination Total marks: 20
3. Practical Total marks: 25

Theory Credit: 02

Practical Credit: 01

No of Required classes: 30 Hours (Theory) + 30 hours (Practical)

No of Non- Contact Classes: 00

Particulars of Course Designer: Department of Political Science,  
Anandaram Dhekial Phookan College, Nagaoi

Learning Objectives:

1. Understand the causes and impact of the major movements of A independence period.
2. To gain knowledge about the conflicting patterns of Group intere how it manifests itself in Violent natures.
3. To increase awareness among the college students about the pat movements and how it affects the Human Rights Scenario of the

people or assam, how the nation building process got effected by sentiments.

Learning outcome:

After the completion of the course,

1. The students will learn social changes and its causes in Assam afte They can also identify the root causes of dissatisfaction of the peo why such movements are occurring in regular intervals.
2. By examining the causes and impact of these movements, the stu Critical thinking and analysis about these events.
3. The students will learn how a popular movement loses its suppor the common masses. It also develops their Empathy and Perspect
4. The student will learn what should be the role of the citizens and machinery in averting the occurrence of such movements in Assar

**Theory Syllabus**

<b>1. First unit: Linguistic Movement of Assam-</b> Origin and History Causes Implications and significance.	0:
<b>2. Second Unit: Assam Movement</b> Causes Implications and significance Assam Accord	0:
<b>3. Third Unit: ULFA Movement and Bodo Movement.</b> Formations and causes of emergence Nature Effects and significance	0:

Practical

Project paper, Seminar Presentation and Interviews	25mark
--	--------

<b>3. Third Unit: ULFA Movement and Bodo Movement.</b> Formations and causes of emergence Nature Effects and significance	0
--	---

Practical

Project paper, Seminar Presentation and Interviews	25mark
--	--------

Suggested Readings:

- Barpujari, H.K.(1998) North-East India: Problems, Policies& Pros  
Publication.
- Baruah, Sanib,( 2005) Durable Disorder, Oxford University Press,

**Serial No-122**  
**Surface Ornamentation**  
**Sec0312203**  
**(By ADP College)**

**Syllabus**

SEC papers for FYUGP : 3<sup>rd</sup> Semester  
 Course Title : **SURFACE ORNAMENTATION**  
 Credit : 03, Total Marks : 75

**Course Objectives:**

To be able to learn

- Various specified surface Embellishment Techniques (value addition to the designing process).
- Application of various techniques of Embroidery Work
- Implement various dyeing and printing technique on fabric
- Application of these technique in fashion designing.

**Evaluation Process :**

Theory : 01 credit, Practical : 02 credits

**Class required :**

Theory : 13 hours. Practical : 40 hours. Worko

4. Project and Album making - 10 m

**Course contains :**

Unit	Marks
<b>Unit- I : Embroidery</b> <ul style="list-style-type: none"> <li>• Recognize tools and materials gain knowledge of various type of fabric</li> <li>• Design Transfer materials</li> <li>• Choosing colour, threads, needles and ironing/finishing process</li> <li>• Basic Hand Embroidery of various Techniques</li> </ul>	5

<b>Unit – II : Indian Traditional Stitches</b>	8
--	---

of india.	
<b>Unit –III : Dyeing and Printing</b> <ul style="list-style-type: none"> <li>• Analysis of tie and dye techniques and process for different styles in different techniques on clothing.</li> <li>• Various printing process and techniques on fabric surface.</li> </ul>	12
<b>Unit-IV : Smocking</b> <ul style="list-style-type: none"> <li>• Study of Smocking</li> <li>• Types and Techniques on fabrics</li> </ul>	5
<b>Unit –V : Project / Album Workout</b> <ul style="list-style-type: none"> <li>• Project Work</li> <li>• Album Making</li> </ul>	10

**Outcomes :** By the end of the course, student will be able and innovate various way to create value addition by mixi

**Reference :**

- R2.k.o. Meara, the pattern Base : over 550 contempor

<b>Unit –V : Project / Album Workout</b> <ul style="list-style-type: none"> <li>• Project Work</li> <li>• Album Making</li> </ul>	10
---	----

**Outcomes :** By the end of the course, student will be able and innovate various way to create value addition by mix

**Reference :**

- R2.k.o. Meara, the pattern Base : over 550 contempor surface design, Thomas and Hudson
- Brotighton k.(1995), Textile dyeing Rockpot Publishes Massachusetts.
- Smocking traditional and Modern Approaches – CEN JEAN HODGES.



**Serial No-123**  
**Museum Methods**  
**SEC0312303**  
**(By GLC College)**

**Distribution of Marks**

1. End semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required Classes: 30 Hours (Theory) + 30 Hours (Practical)
  - Particulars of Course Designer: Department of Anthropology, G.L. Choudhury College, Barpeta Road.

**Learning objectives:**

- ❖ Introduce to students to the fundamentals of Museum study.
- ❖ Provide practical Knowledge in the field.

**Learning outcomes:**

- ❖ Students will get basic skill about Museum study.
- ❖ Students will get information about local heritage sites of the area.
- ❖ Students will be aware about latest techniques used in the field.

**PAPER: THEORY**

<b>Unit No</b>	<b>Course unit</b>	<b>Course Hours</b>	<b>Marks Allotted</b>
Unit 1	Definition and Scope of Museum, Functions of Museum.	8 Hours	15
Unit 2	Role of Museum in Anthropology.	7 Hours	10
Unit 3	Arrangements of Museum specimens n Ethnographic Museum.	8 Hours	10
Unit 4	Cleaning and Treatment and Preservation of (a) Bamboo and wooden Objects (b) Textile and Leather	7 Hours	15

**PAPER: PRACTICAL**

Unit 1	Visit to District/state Museum and prepare a report on it.	30 hours	25
--------	--	----------	----

### Suggested Readings:

1. Agarwal, O.P., *Care and Treatment of Cultural Materials*.
2. Bhatia, S.K., *A Guide on the Preventive Conservation of Museum Materials*.
3. Carbonell, Bettina Messias: *Museum studies: An Anthropology of contexts*. Malden, Mass:  
Blackwell Publishing, 2004
4. Gupta, S.P & M Srivastav (2010). *Modern Museum Management*. D.K. Print world Ltd. New Delhi.
5. Hooper-Greenhill, Eilean (1992); *Museum and the Shaping of Knowledge*. London: Routledge.
6. Sol tax (ed), *Current Anthropology*. (Selective) 1969 Parti II, Vol. 10(4)
7. Wittlin, Alma, S. *the Museum: Its History and its tasks in Education*.



Serial No-124  
Children and Human Rights  
SEC0312403  
(By GLC College)

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	45
2. Sessional Examination: Total Marks:	30
➤ Theory Credit	03

Particulars of Course Designer: Department of Political Science, G.L. Choudhury college, Barpeta Road.

COURSE OBJECTIVES- The basic objectives of the course are –

- i. To provide sufficient knowledge of children's rights both national & International
- ii. To make awareness regarding promotion and protection of human rights of children

COURSE OUTCOME

On successful completion of the course the students will be able to acquire knowledge of the human rights of children and accordingly they may play the role of watch-dog in the society both national & international for the promotion, preservation and protection of the human right of children.

COURSE CONTENT

Unit s	Hours	Mark s
<b>UNIT-1: Concept of children and their rights</b> i. A child as a member of vulnerable group. ii. Meaning of a child. iii. Origin of the concept of children rights. iv. International scenario of children rights: Conventions, Declarations on the rights of children and the formation of International Children Fund. v. Special protection of children rights in difficult situations.	30 lectures	25
<b>UNIT-2: Children and human right scenario in India</b> i. Constitutional Provisions. ii. Legal Provisions.	15 lectures	10

<b>UNIT-3: Factors responsible for the violation of the rights of children</b> i. National ii. International	15 lectures	10
--	----------------	----

### **SUGGESTED READING**

1. Yasin, Adil-ul and Archana: Human rights, Akansha publishing House, New Delhi
2. Abdul Rahim P. Vijapur: Human rights in International Relations, Manak Publications PVT. LTD, New Delhi
3. Buzar Baruah, Bhupesh Malla and Ripima Buzar Baruah, Manav Adhikar, Bani Prakash, Guwahati.
4. Buzar Baruah, Bhupesh Malla and Ripima Buzar Baruah, Bharatar Manav Adhikar, Bani Prakash, Guwahati
5. Gupta UN: The Human Rights, Conventions and Indian Law, ATALANTIC Publisher and Distributor(P) LTD, New Delhi
6. Agarwal Dr H. O.: Human Rights, Central Law Publication, Allahabad (2006)

**Serial No-125**  
**Radiation Safety**  
**SEC0312503**  
**(By GLC College)**

***Learning Objectives:***

*To ensure safety of the public, occupational workers and the environment, this course on the basic knowledge of radiation safety is introduced. The course is designed in such a way to acquaint the students with the sources of various natural and man-made radiation sources, risks involved in working in relatively high radiation zone, and safety measures to be taken to protect individual's health.*

***Learning Outcomes:***

*The students will acquire a basic knowledge of types and sources of radiations, interaction of radiations with matter, risks involved and safety measures to be taken.*

**THEORY:**

<b>TOPICS</b>	<b>HOURS</b>
<p><b><i>Unit I: Structure of Matter</i></b>            Constituents of atoms and nuclei, atomic and mass numbers, Isotopes, energy units, electron shells, atomic energy levels, Nuclear energy levels. Transitions between atomic energy levels (resulting optical photons) and nuclear energy levels (resulting gamma photons), - Ionization and excitation, Electromagnetic spectrum, Relationship between wavelengths, Frequency, Energy. Units and Measurements of Physical Quantities: Force, Work, Power, energy temperature and heat. SI units of above parameters.</p>	6
<p><b><i>Unit II: Radioactivity</i></b>            Natural and artificial radioactivity, types of nuclear radiations: alpha, beta, and gamma rays – concepts of Half-life, activity, units of activity, -specific activity. Interactions of gamma ray and charged particles with matter. Absorbed Dose, Units of Dose. Radiation hazard, Safety measurements: Time, distance and shielding. Occupational dose limit.</p>	6

***Unit III: Radiation Quantities and Units***

Particle flux and fluence, Radiation flux and fluence, cross section, energy linear energy transfer (LET), linear and mass attenuation coefficients, mass stopping power, inverse square law, W-value, exposure (rate), Kerma (rate), Terma, absorbed dose (rate), rate

7

constants, radiation weighting factors, tissue weighting factors, equivalent dose, effective dose, collective effective dose, Annual Limit of Intake {ALI}, Derived Air Concentration {DAC}, personnel dose equivalent, committed dose.	
<b>Unit IV: X-Ray</b> Electromagnetic waves, X-Rays – Production of X-rays: The X-ray tube, Physics of X-ray production, continuous spectrum, characteristic spectrum, – Basics of X-ray Circuits, measurement of high voltage – control of KV circuit – MA circuit. Loading, processing and storing of X-ray plates. Distribution of X-rays in space, Interaction of X-rays with matter, Attenuation of x-rays. Radiation effect of X-rays, safety measurements to be followed.	5
<b>Unit V: Computed Tomography</b> Theory of tomography – multi section radiography, tomographic equipment, Computer tomography. Radiation hazard of Tomographic machine, Safety measurement to be followed.	3
<b>Unit VI: MRI (Lectures 3)</b> Magnetic Resonance imaging – Basic principle – Imaging methods – Slice section, Image contrast, Bio-effects of MRI. Safety measurements. Counting statistics, errors in counting.	3

**PRACTICAL:**

TOPICS
<ol style="list-style-type: none"> <li>1. Taking X-ray of a pen/pencil</li> <li>2. Visit to a CT scan and MRI laboratory.</li> <li>3. Study the background radiation levels using Radiation meter</li> <li>4. Study of counting statistics using background radiation using GM counter.</li> </ol>

***Suggested Readings:***

[1] Radiation Safety: JS Ballard (<https://openoregon.pressbooks.pub/radsafety130/>)  
[2] Atomic and Nuclear Physics Vol. II: SN Ghosal  
[3] An introduction to Radiation Physics: Vivek Mandot (ISBN: 9788179067635, 8179067637)  
[4] W.E. Burcham and M. Jobes – Nuclear and Particle Physics – Longman (1995)  
[5] G.F. Knoll, Radiation detection and measurements  
[6] Thermoluminescence Dosimetry, Mcknlay, A.F., Bristol, Adam Hilger (Medical Physics Handbook 5)

[7] W.J.MeredithandJ.B.Massey,“FundamentalPhysicsofRadiology”.JohnWrightandSons, UK, 1989.

[8] J.R. Greening, “Fundamentals of Radiation Dosimetry”, Medical Physics Hand Book Series, No.6, Adam Hilger Ltd., Bristol 1981.

[9] Practical Applications of Radioactivity and Nuclear Radiations, G.C. Lowental and P.L.

Airey, Cambridge University Press, U.K., 2001 [10] A. Martin and S.A. Harbisor, An Introduction toRadiationProtection,JohnWilley&Sons,Inc.NewYork,1981.NCRP,ICRP, ICRU, IAEA, AERB Publications. W.R. Hendee, “Medical Radiation Physics”, Year Book – Medical Publishers Inc. London, 1981

**Serial No-126**

**R Programming**

**SEC0312603**

**(By GLC College)**

**COURSE OBJECTIVES:**

The purpose of this course is to help using **R**, a powerful free software program for doing statistical computing and graphics. It can be used for exploring and plotting data, as well as performing statistical tests.

**COURSE OUTCOME:**

After studying this course, the students will be able to:

- a) Become familiar with **R** syntax and to use **R** as a calculator.
- b) Understand the concept of objects, vectors and data types.
- c) Know about summary commands and summary table in **R**.
- d) Visualize distribution of data in **R** and learn about normality test.

**Unit 1: Getting Started with R- The Statistical Programming Language (Lectures: 10)**

Introducing **R**, using **R** as a calculator; explore data and relationships in **R**; reading and getting data into **R**: combine and scan commands, viewing named objects and removing objects from **R**, types and structures of data items with their properties, working with history commands, saving work in **R**; manipulating vectors, data frames, matrices and lists; viewing objects within objects, constructing data objects and their conversions.

**Unit 2: Descriptive Statistics and Tabulation (Lectures:10)**

Summary commands: Summary statistics for vectors, data frames, matrices and lists; summary tables.

**Unit 3: Distribution of Data (Lectures: 10)**

Stem and leaf plot, Histograms, Density function and its plotting, The Shapiro- Wilk test for normality, The Kolmogorov- Smirnov test.

[1] Chapter 14 (Exercises 1 to 3)

[2] Relevant exercises of Chapters 2 to 5.

**PRACTICAL: (Hours 15)**

**At least six practicals should be done by each student.**

**BOOKS RECOMMENDED:**

1. Bindner, D. & Erickson, M. (2011): *A Student's Guide to the Study, Practice, and Tools of Modern Mathematics*, CRC Press, Taylor & Francis Group, LLC.
2. Gardener, M. (2012): *Beginning **R**: The Statistical Programming Language*, Wiley Publications.



**Serial No-127**

**Folk-Performing Art of Lower Assam**

**SEC0312703**

**(By Mangaldai College)**

**SEC Syllabus for Semester III (FYUGP) under Gauhati University**

**Course Name: Folk - Performing Art of Lower Assam**

**(পাঠ্যক্রমঃ নামনি অসমৰ লোক-পৰিৱেশ্য কলা)**

**Paper Code : SEC0312703**

**Credit: 3**

**Credit Distribution (Theory/Practical):**

**Theory: 2 Credit, Practical: 1 Credit**

**Full Marks: 75**

**Internal Assessment: 20,**

**Theory: 30,**

**Practical: 25**

এই পাঠ্যক্রমৰ ১ম গোটৰ অধ্যয়নৰ যোগেদি পৰিৱেশ্য কলা আৰু লোকসংস্কৃতি, জনজাতীয় আৰু মাৰ্গীয় সংস্কৃতিৰ পৰিচয় পাব।

২য় গোটৰ অধ্যয়নৰ যোগেদি নামনি অসমৰ বিভিন্ন অঞ্চলৰ পৰিৱেশ্য কলাৰ পৰিচয় পাব আৰু সেইবোৰৰ মাজত থকা পাৰ্থক্যৰ বিষয়ে জ্ঞান আহৰণ কৰিব।

৩য় গোটৰ যোগেদি নামনি অসমত প্ৰচলিত পৰিৱেশ্য কলা পৰিবেশন কৰা ধাৰক-বাহক আৰু এই কলাৰ সামাজিক প্ৰকাৰ্যৰ বিষয়ে জানিব।

৪ৰ্থ গোটৰ যোগেদি বিভিন্ন পৰিৱেশ্য কলা পৰিবেশন পদ্ধতি, পৰিবেশন শৈলী আদিৰ জ্ঞান লাভ কৰি প্ৰয়োগ কৰাৰ সুবিধা পাব।

## বিষয়সূচী

প্ৰথম গোট : পৰিৱেশ্য কলাৰ সংজ্ঞা, গীত: লোক, জনজাতীয়, মাৰ্গী, লোক সংগীত, জনজাতীয় সংগীত আৰু মাৰ্গীয় সংগীতৰ মাজত পাৰ্থক্য।

দ্বিতীয় গোট : অসমৰ বিভিন্ন জনগোষ্ঠীৰ মাজত প্ৰচলিত পৰিৱেশ্য কলাৰ সাধাৰণ পৰিচয়।

তৃতীয় গোট : পৰিৱেশ্য কলা: ব্যাস ওজাপালি, সুকনানি ওজাপালি, কামৰূপীয়া ঢুলীয়া, কুশান গান, ভাৰীগান, খুলীয়া ভাউৰীয়া, চেপাঢুলীয়া, হুদুম নৃত্য, দেওধনী নৃত্য, বৰপেটাৰ থিয়নাম, নামনি অসমৰ নাগাৰা নাম।

চতুৰ্থ গোট: পৰিৱেশ্য কলাত ব্যবহৃত বাদ্য-বাজানা

(তৃতীয় গোটৰ কৰ্মশালা আৰু পৰিবেশন কৰাব।)

## প্ৰসঙ্গ পুথি :

অসমৰ লোক সাহিত্য: নবীন চন্দ্ৰ শৰ্মা

অসমৰ সাংস্কৃতিক ইতিহাস (দ্বিতীয় খণ্ড): নবীন চন্দ্ৰ শৰ্মা

অসমীয়া নাট্য সাহিত্য: সত্যেন্দ্ৰ নাথ শৰ্মা

অসমীয়া নাট্য সাহিত্যৰ জিলাগুনি: হৰিশ্চন্দ্ৰ ভট্টাচাৰ্য

অসমৰ সংস্কৃতি কোষ: নাৰায়ণ দাস (সম্পা)

ভাৰতৰ উত্তৰ পূৰ্বাঞ্চলৰ লোকসংস্কৃতি: নবীন চন্দ্ৰ শৰ্মা

লোকনাট্য: খুলীয়া ভাউৰীয়া: বিজয় কুমাৰ শৰ্মা

লোক সংস্কৃতি: নবীন চন্দ্ৰ শৰ্মা

অসমৰ লোকনাট্য আৰু দৰঙৰ খুলীয়া ভাউৰীয়া: পৰমানন্দ ৰাজবংশী  
(সম্পা)

অসমীয়া সংস্কৃতি অধ্যয়ন: কনক চন্দ্ৰ চহৰীয়া

প্ৰজ্ঞা: ডিম্বেশ্বৰ বৰুৱা, উমেশ চন্দ্ৰ শৰ্মা (সম্পা)

জ্ঞানম: ডিম্বেশ্বৰ বৰুৱা, মিন্টু পাঠক আৰু নৰেশ্বৰ নাৰ্জাৰী (সম্পা)

প্ৰবন্ধ সৌৰভ: লীনা শইকীয়া, ডিম্বেশ্বৰ বৰুৱা (সম্পা)

অভিধান: দীপ্তি দাস, পৰিস্থিতা মিশ্ৰ (সম্পা)

নাট্যতত্ত্ব আৰু আলোচনা: চিত্ৰ ৰঞ্জন নাথ (সম্পা)

**Serial No-128**  
**Basics of Nanoscience and Nanotechnology**  
**SEC0312803**  
**(By Birjhora Mahavidyalaya)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical/ Project: Total Marks: 25
  - Theory Credit 02
  - Practical Credit 01
  - No. of Required Classes 30 hours (Theory) + 30 hours (Practical/ Project)
  - No. of Non-Contact Classes 00
  - Particulars of Course Designer

Dr. Kaushik Das, Assistant Professor  
 Department of Physics, Birjhora Mahavidyalaya  
 Email: [kaushikdas2089@gmail.com](mailto:kaushikdas2089@gmail.com),  
 Contact No: 8876031886

**Learning objectives:**

- ❖ To acquire the basic understanding of the influence of dimensionality at the nanoscale.
- ❖ To acquire the understanding of nanomaterial properties, size, and shape.
- ❖ To acquire the knowledge of controlled synthesis techniques of nanomaterials.
- ❖ To acquire the basic understanding of the tools and techniques used to analyze nanomaterials.

**Learning outcomes:**

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

- Differentiate between bulk materials to nanomaterials and understand their properties
- Gain the knowledge of various synthesis techniques of nanomaterials.
- Gain the understanding of the nanomaterial properties and their technological aspects.
- Understand and apply the various tools and techniques used to analyze nanomaterials.
- Apply the knowledge in future research in the field of nanoscience and nanotechnology.

**THEORY PART**

Unit 1: <b>Nanoscale materials</b> History of nanoscience, nanometer dimension, 3D, 2D, 1D, 0D materials, Quantum Confinement, Energy Discretization, Surface-to-volume ratio, Applications of nanomaterials with examples.	Hours: 5	Marks: 5
Unit 2: <b>Synthesis Techniques</b>	Hours:	Marks: 10

Bottom-up approach: sol-gel synthesis, solution and hydrothermal growth, thin film growth (PVD & CVD), and Top-Down approach: Ball milling, microfabrication, Lithography, Ion-beam lithography, molecular beam epitaxy.	10	
<b>Unit 3: Surface Properties of Nanomaterials</b> Phonons in nanomaterials, surface optic phonons, surface Plasmons, interfacial charge transfer, fermi surface, grain growth, surface defects, Langmuir relation, Ostwald ripening, Hall-Petch relation, grain correlated properties.	Hours: 8	Marks: 8
<b>Unit 4: Analytical Tools &amp; Techniques</b> X-ray diffraction, Atomic Force Microscopy, UV-Vis Spectroscopy, Photoluminescence Spectroscopy, Raman spectroscopy, scanning and transmission electron microscopy.	Hours: 7	Marks: 7

### PRACTICAL PART

<b>Project/ Dissertation/ Laboratory visit:</b> <i>A mini project must be done by the students as per the topics given by the course instructor. A report must be submitted on the project along with a PowerPoint presentation or viva voce examination or both. The mini project may be experimental works, laboratory visit or literature review on topics related to nanoscience.</i>	Hours: 30	Marks: 25
--	-----------	-----------

#### Reference Book:

- 1) G. Cao, and Y. Wang, Nanostructures and Nanomaterials: Synthesis, Properties and Applications, 2nd edition, (World Scientific, 2011).
- 2) M. S. R. Rao and S. Singh, Nanoscience and Nanotechnology: Fundamentals to Frontiers, 1st edition, (Wiley, 2013).
- 3) C. P. Poole, Jr. and F. J. Owens, Introduction to Nanotechnology, (Wiley, 2003).
- 4) A. Nouailhat, An Introduction to Nanosciences and Nanotechnology, (Wiley 2007).
- 5) K. K. Chattopadhyay, A. N. Banerjee, Introduction to Nanoscience and Nanotechnology, (Prentice Hall, 2009).

\*\*\*\*\*

**Serial No-129**  
**Folk-Performing Art of Assam**  
**SEC0312903**  
**(By Moirabari College)**

SEC. COURSE



Semester -3rd  
Course Name-Folk Performing Art of Assam  
Credit-3  
Credit Distribution - Theory -2 Credit Practical-1Credit  
Marks Distribution -Theory-45, Practical -25

**Content**

Unit 1: Folk Performing Art (Definition and Characteristics, Places and Community Specific Performing Art Forms).  
Marks-15

Unit-2: Performing Art of Assam (Ojapali, Dhulia Naach, Bihu, Kushan Gaan, Bhari Gaan, etc.).  
Marks-15

Unit-3: Musical Instruments and Dresses of Performing Art of Assam  
Marks-15

**Reference Books:**

1. Barthakur, Dilip Ranjan, The Music & Musical Instruments of North-east India
2. Borgohai Phukan Nilakshi, Female Dance Traditions of Assam
3. Neog, Maheswar, Aesthetic Continue Essays on Assamese Music, Drama, Dance and Painting
4. Sharma, Nabin Chandra, Asomiya Lokasanskritir Abhas

Prepared by  
Dept. of Assamese  
Moirabari College

**Serial No-130**  
**Karyalayi Anuvad**  
**SEC0313003**  
**(By Moirabari College)**

**SEC (Skill Enhancement Course)**  
**Dept. of Hindi, Moirabari College**  
**Class :- 3<sup>rd</sup> Semester (FYUGP)/2024**  
**Paper Tittle :- Karyalayi Anuvad**  
**Paper Code :- SEC 0303014**



**Total Credit:03**  
**Total Mark:75**

**End Semester Examination:30**  
**Sessional Examination:20**  
**Practical:25**

**लक्ष्य :** विद्यार्थियों को हिन्दी भाषा के विविध रूपों, हिन्दी-सम्बन्धी विविध संवैधानिक प्रावधानों, हिन्दी के माध्यम से किए जाने वाले विभिन्न पत्राचारों, प्रशासनिक पत्रावली की निष्पादन-प्रक्रियाओं और कार्यालयीन प्रयोजनों में विभिन्न यांत्रिक उपकरणों के अनुप्रयोग-सम्बन्धी सम्यक् जानकारी देकर उनके हिन्दी प्रयोग-सम्बन्धी कौशल में वृद्धि लाना इस प्रश्न-पत्र का प्रधान लक्ष्य है।

- इकाई 1** हिन्दी भाषा के विविध रूप -- राष्ट्रभाषा, राजभाषा, जनभाषा  
शिक्षण-माध्यम भाषा, संचार भाषा, सर्जनात्मक भाषा, यांत्रिक भाषा  
राजभाषा का स्वरूप, भारतीय संविधान में राजभाषा सम्बन्धी परिनियमावली का सामान्य परिचय, राजभाषा के रूप में हिन्दी के समक्ष व्यावहारिक कठिनाइयाँ एवं सम्भावित समाधान
- इकाई 2** टिप्पण, प्रारूप/आलेखन, पल्लवन, संक्षेपण  
विभिन्न प्रकार के पत्राचार, प्रशासनिक पत्रावली की निष्पादन प्रक्रियाएँ
- इकाई 3** पारिभाषिक शब्दावली  
कार्यालयीन प्रयोजनों में विभिन्न यांत्रिक उपकरणों का अनुप्रयोग : कम्प्यूटर, लेपटॉप, टेबलेट, टेलीप्रिंटर, टेलेक्स, वीडियो कॉन्फ्रेंसिंग  
राजभाषा का स्वरूप, भारतीय संविधान में राजभाषा सम्बन्धी परिनियमावली का सामान्य परिचय, राजभाषा के रूप में हिन्दी के समक्ष व्यावहारिक कठिनाइयाँ एवं सम्भावित समाधान
- इकाई 2** टिप्पण, प्रारूप/आलेखन, पल्लवन, संक्षेपण  
विभिन्न प्रकार के पत्राचार, प्रशासनिक पत्रावली की निष्पादन प्रक्रियाएँ
- इकाई 3** पारिभाषिक शब्दावली  
कार्यालयीन प्रयोजनों में विभिन्न यांत्रिक उपकरणों का अनुप्रयोग : कम्प्यूटर, लेपटॉप, टेबलेट, टेलीप्रिंटर, टेलेक्स, वीडियो कॉन्फ्रेंसिंग

**सन्दर्भ ग्रन्थ :**

1. प्रयोजनयुक्त हिन्दी – डॉ॰ विनोद गोदरे, वाणी प्रकाशन, नयी दिल्ली।
2. प्रयोजनिक हिन्दी – डॉ॰ बालेंद्रु शेखर तिवारी, अनुपम प्रकाशन, पटना।
3. राजभाषा हिन्दी -- डॉ॰ भोलानाथ तिवारी, प्रभात प्रकाशन, दिल्ली।
4. राजभाषा हिन्दी : विकास के विविध आयाम – डॉ॰ मलिक मोहम्मद, प्रवीण प्रकाशन, नयी दिल्ली।
5. प्रायोगिक आलेखन और टिप्पण -- प्रो॰ बिराज, राजपाल एंड सन्स, दिल्ली।
6. व्यावहारिक आलेखन और टिप्पण – डॉ॰ अमृत्यु वर्मन, असम हिन्दी प्रकाशन, गुवाहाटी।
7. कार्यालय महायंत्रिका – हरिबाबू कंसल, केन्द्रीय मन्त्रिालय हिन्दी परिषद, दिल्ली।
8. अनुवाद विज्ञान -- डॉ॰ भोलानाथ तिवारी, किताबघर प्रकाशन, नयी दिल्ली।
9. अनुवाद-सुधा (भाग-1) -- डॉ॰ अच्युत शर्मा (संपा.), शब्द भारती, गुवाहाटी।
10. अनुवाद-सुधा (भाग-2) -- डॉ॰ अच्युत शर्मा (संपा.), शब्द भारती, गुवाहाटी।

Serial No-131

Indian Parliament- Understanding the devices and Procedures

SEC0313103

(By Moirabari College)

SKILL ENHANCEMENT COURSE  
Department of Political Science  
Moirabari College  
FYUGP BA 3<sup>rd</sup> Semester



Course Name: Indian Parliament—Understanding the Devices and Procedures

Total Marks: 75 marks (End Semester Exam Marks- 45 + Internal Asses-1-30)

Credit: 3

**Course Objective:** *This course is meant to make the students familiar with legislative practices in India and at the same time equip them with the adequate skills to participate in deliberative processes and democratic decision-making in the country. The first unit of the course is an overview of the Parliamentary system in India and its constitutional provisions. The second unit attempts to make students understand the devices of the parliamentary proceedings and its intricacies which play a critical role in shaping the deliberative process and maintaining order within parliamentary democracies. The third unit of the course seeks to help students understand the different types of bills in the Indian parliament and how these bills are passed, with a proper understanding related to the procedures, practices related to the passage of a bill from drafting to that of the passing of the Bill.*

**Course Outcome:**

- To facilitate students in understanding the basic functioning of the Indian Parliament
- To help students understand the variety of devices in the Indian Parliament and its intricacies in the parliamentary proceedings
- To make students classify the different types of Bills and enable students to have a clear understanding on how a bill is passed in the Indian Parliament
- To equip students with the adequate skills of participation in the Indian democracy

**Unit I. Indian Parliament: Introduction**

Parliamentary system in India  
Composition of the Indian Parliament

**Unit I. Indian Parliament: Introduction**

Parliamentary system in India  
Composition of the Indian Parliament  
Constitutional Provisions of Legislative procedures.

**Unit II. Devices of Parliamentary proceedings**

Hours  
-Question Hour  
-Zero Hour

Motions  
-Calling Attention Motion





- Adjournment Motion
- Privilege Motion
- Censure Motion
- 'No-Confidence' Motion
- Cut Motion

#### Unit III. Bills

- Kind of Bills
- Ordinary Bills
- Money Bills
- Finance Bills
- Private Members

How a Bill is passed in the Indian Parliament?

- Drafting of the Bill
- First Reading and Departmental Standing Committee
- Second Reading
- Third Reading
- Passage of the Bill
- Consent by the President
- Gazette Notifications

#### Suggested Readings:

1. Kaul M.N. & S.L. Shakhder (2016). *Practice and Procedure of Parliament*, New

- Consent by the President
- Gazette Notifications

#### Suggested Readings:

1. Kaul, M.N. & S.L. Shakhder (2016), *Practice and Procedure of Parliament*, New Delhi, Lok Sabha Secretariat
2. Shankar, B. & Rodriguez V. (2011), *The Indian Parliament: A Democracy at Work*, New Delhi, Oxford University Press
3. Pai, Sudha & Kumar, A. Eds. (2014), *The Indian Parliament: A Critical Appraisal*, New Delhi, Orient BlackSwan
4. Basu, D.D. (2006), *Introduction to the Constitution of Indian*, Nagpur, Wadhwa & Co.
5. Kapur, D., Mehta, P & Vaishnab, M. eds. (2017), *Rethinking Public Institution in India*, New Delhi, Oxford University Press
6. Malhotra, G. (2002), *Fifty Years of Indian Parliament*, New Delhi, Lok Sabha Secretariat
7. Kashyap, S.C. (2008), *History of Indian Parliament*, India
8. Prasad, S.B. & Pramanik, S. (2021), *Working of Indian Parliament: Theory and Practice*, India

\*\*\*\*\*

Serial No-132

**Geography of Environment & Disaster Management**

**SEC0313203**

**(By Moirabari College)**

*Skill Enhancement Course (SEC)*

**Geography of Environment & Disaster Management**

**Credits: 3 (Theory: 2, Practical: 1)**

**Paper Code: SEC03.....**



**Distribution of Marks:**

**Total Marks: 75**

1. End Semester Examination: 30
2. Sessional Examination: 20
3. Practical: 25

**Learning Objectives:**

- To introduce new concept among students on the relevance of environmental studies.
- To provide students with a broad framework for understanding the relationship between man and nature.
- To introduce major environmental problems and make students prepare to deal with such problems.
- To make students understand how environmental issues can turn into serious disaster.
- To prepare students for better environment & disaster management

**Learning Outcomes:**

- Students will understand and evaluate the global scale of environmental problems.
- The course will make the students capable of taking effective steps for environmental and disaster management.

- The course will make the students capable of handling environmental issues and disaster management.
- Students, through the course, will definitely be able to make contribution for sustainable management of environment.

**Unit 1: Fundamentals of Environmental Studies**

- Meaning, Scope and Importance of Environmental Studies.
- Nature and Characteristics of Environmental Studies.

**Unit 2: Major Environmental Problems and Management**

- Pollution, Deforestation, Desertification, Global Warming and Climate Change

Scanned with ACE Scanner

**Unit 3: Fundamentals of Disaster Management**

- Disaster Management: Meaning and Concept
- Hazards and Disaster: Concept, Types and Management
- Plan & Policies: Environmental Protection Act, 1986 & Disaster Management Act, 2005



2005

**Unit 4: Project Work/ Assignment**

**Suggested Readings:**

- Das, N. 2023. Environmental Studies (NEP-2020). Union Book Publication. Guwahati-1
- Kalita, P & Kalita, H. 2022. Environmental Geography and Disaster Management. Mani-ManikPrakas. Guwahati-781001
- Ali, W. 2004. Environmental Studies (for UG Course). Alok Book Stall, New Market, Goalpara-783101.
- Kaushik, Anubha & Kaushik, C.P. 2004. Perspectives in Environmental Studies. New Age International (P) Ltd., Publishers. New Delhi-110002
- Chandna, R.C. 2002. Environmental Geography, Kalyani, Ludhiana.
- Goudie, A. 2001. The Nature of the Environment. Blackwell, Oxford.

**Prepared By:**

Department of Geography, Moirabari College,  
Morigaon, Assam, 782126

*[Signature]*  
Principal  
Moirabari College  
Morigaon, Assam

**Serial No-133**  
**Micro Finance – I**  
**SEC0313303**  
**(By Moirabari College)**

Skill Enhancement Course (SEC)  
**Department of Economics**  
Moirabari College  
BA 3<sup>rd</sup> Semester, FYUGP  
**Course Name : Micro Finance - I**  
Credit : 3



*Credit Distribution:-Theory-2 Credits + Practical- 1 Credit*  
*Total Marks: 75*

**Distribution of Marks:**

1. End semester Examination: 30 Marks
2. Sessional Examination: 20 Marks
3. Practical: 25 Marks

**Course Description:**

This course on Microfinance explores the principles and practices of financial services provided to low-income individuals and small businesses. Students will examine the evolution of microfinance, key institutions, and the impact on economic development. Topics include microloan models, savings programs, insurance, and innovative fintech solutions. Emphasis is placed on the social and economic outcomes of microfinance initiatives, including case studies from various regional contexts. The course also addresses challenges such as sustainability, regulation, and the effectiveness of microfinance in poverty alleviation. By the end, students will understand how microfinance can empower communities and drive financial inclusion.

**Course Objectives:**

1. To Know the concept of Micro Finance and its objectives.  
communities and drive financial inclusion.

**Course Objectives:**

1. To Know the concept of Micro Finance and its objectives.
2. To make the learners know about the origin and evolution of Micro Finance.
3. To identify various sources of funds of MFIs and their different models.
4. To learn about the impact of MFIs on community and their success stories.

**Learning Outcomes :**

1. **Understand Microfinance Basics:** Grasp core principles, history, and models of microfinance.

CS CamScanner

2. **Evaluate Microfinance Institutions:** Assess various types of MFIs and their business models.
3. **Measure Impact:** Analyze the social and economic effects of microfinance on communities.
4. **Financial Management Skills:** Learn financial practices relevant to



2. **Evaluate Microfinance Institutions:** Assess various types of MFIs and their business models.
3. **Measure Impact:** Analyze the social and economic effects of microfinance on communities.
4. **Financial Management Skills:** Learn financial practices relevant to microfinance, including risk management.
5. **Policy and Ethics:** Explore regulatory, ethical, and sustainability issues.
6. **Fieldwork Experience:** Apply theoretical knowledge through practical fieldwork.

**Content:**

**Unit – I Basics of Micro Finance**

Micro Finance : Meaning and Concept, Nature and Scope, Objectives of Micro Finance, Micro Finance and Micro Credit, Benefits of Micro Finance.

**Unit – II Evolution of Micro Finance**

Origin of Micro Finance and Bangladesh Experience. Evolution of Micro Finance in India, Micro Finance in Regional Context.

**Unit – III Micro Finance Credit Lending Model**

Micro Finance Credit Lending Models: Association Model, Community Banking Model, Co – operative Model, Credit Union Model, Selp Help Group (SHG) Model, Joint Liability Group Model, Rotating Savings and Credit Association, Village Banking Model.

**Unit – IV Impact and success Stories – With Special Reference to Assam.**

**Unit – V Project: Case Studies**

**Reading List :**

1. Essentials of Microfinance (2015). M.M. Sulphey Vivek, Viva Publication

**Reading List :**

1. Essentials of Microfinance (2015). M.M. Sulphey Vivek, Viva Publication Delhi
2. Fundamentals of Microfinance: Debabrata Das and Reshma Kumari Tiwari
3. Kline, Kenny and Sandhu, Santadarshan. "Microfinance in India: A new regulatory Structure"
4. Microfinance – Principles and Approaches (2013), Dr. V. Rengaraja, Notion Press.
5. Micro Credit Institutions, by Uma Narang

6. Micro Finance Institutions (Development and Regulation) Bill, 2012
7. Understanding Microfinance, by Debadutta K. Panda.

\*\*\*\*



**Serial No-135**  
**Book Layout and Design**  
**SEC0313503**  
**(By Mayang Anchalik College)**

**Credits:** 3 (Marks: 75)

**Distribution of Marks:**

- **End Semester Examination:** 30 Marks
- **Sessional Examination:** 20 Marks
- **Practical:** 25 Marks

**Theory Credit:** 2

**Practical Credit:** 1

**Total Classes Required:** 60 hours (T+P= 30+30)

**Course Designer:** Dr. Bristi Kalita, Department of Assamese, Mayang Anchalik College

---

**Course Overview:**

This course is designed to provide students with essential skills in book layout and design using Microsoft Word, focusing on the Assamese language. The course covers the fundamentals of design principles, practical techniques, and specialized skills necessary to create professional-quality books in both print and digital formats.

**Learning Objectives:**

- **Understanding Design Principles:** Develop a thorough understanding of design elements such as typography, colour theory, layout composition, and visual hierarchy.
- **Mastering Microsoft Word:** Gain proficiency in using Microsoft Word as a primary tool for effective book layout and design.
- **Typography Mastery:** Learn to choose and pair typefaces appropriately, focusing on Assamese typography.
- **Layout Techniques:** Acquire knowledge of grid systems, margins, gutters, and balancing text and images to create visually appealing and functional book layouts.
- **Print and Digital Considerations:** Understand the differences between designing for print and digital formats, focusing on resolution, interactive elements, and accessibility considerations.

**Learning Outcomes:**

Upon completing this course, students will be able to:

- Demonstrate proficiency in design principles tailored to the Assamese language.
- Utilize Microsoft Word effectively to create professional-quality book layouts.
- Optimize typography for readability and aesthetics in Assamese books.
- Create structured and cohesive layouts that are culturally and linguistically appropriate.
- Adapt designs for different publishing formats, including print and digital.
- Collaborate effectively in design projects, applying ethical considerations in the publishing process.

**Course Structure:**

**Theory:**

<b>UNITS</b>	<b>HOURS</b>	<b>MARKS</b>
<b>Unit 1: Introduction to Microsoft Word for Book Layout</b> <ul style="list-style-type: none"><li>• Overview of Microsoft Word as a tool for book design.</li><li>• Understanding the user interface: ribbons, menus, and toolbars.</li><li>• Exploring the basic features of Microsoft Word related to text formatting, paragraph styles, and page setup.</li></ul>	5	8
<b>Unit 2: Typography in Microsoft Word</b> <ul style="list-style-type: none"><li>• Using fonts and typefaces in Microsoft Word.</li><li>• Setting up and modifying text styles: headers, subleaders, and body text.</li><li>• Understanding and applying typography principles: kerning, leading, tracking, and hierarchy within Microsoft Word.</li><li>• Utilizing advanced font features: ligatures, stylistic sets, and OpenType features.</li></ul>	5	8
<b>Unit 3: Layout Principles Using Microsoft Word</b> <ul style="list-style-type: none"><li>• Page setup: margins, orientation, and size.</li><li>• Working with columns, grids, and alignment tools in Word.</li><li>• Balancing text and images: inserting, positioning, and wrapping images.</li><li>• Managing white space, margins, and gutters effectively using Word's layout tools.</li></ul>	5	8



<p><b>Unit 4: Creating and Managing Sections and Templates in Microsoft Word</b></p> <ul style="list-style-type: none"> <li>• Creating and managing sections within a document.</li> <li>• Working with headers, footers, and page numbering.</li> <li>• Designing and using templates: creating a consistent look and feel across multiple documents.</li> <li>• Saving and sharing templates for collaborative projects.</li> </ul>	5	8
<p><b>Unit 5: Advanced Features for Book Design in Microsoft Word</b></p> <ul style="list-style-type: none"> <li>• Using tables, charts, and shapes to enhance the visual appeal of book layouts.</li> <li>• Inserting and managing references, footnotes, and endnotes.</li> <li>• Creating and customizing a table of contents, index, and bibliography.</li> <li>• Working with Microsoft Word’s accessibility features for digital publishing.</li> </ul>	5	9
<p><b>Unit 6: Preparing Files for Print and Digital Publishing in Microsoft Word</b></p> <ul style="list-style-type: none"> <li>• Setting up documents for print: ensuring correct resolution and bleed.</li> <li>• Exporting documents as PDFs or other formats for digital publishing.</li> <li>• Understanding and managing Word’s compatibility options for different devices and platforms.</li> <li>• Proofreading tools and final checks before publication.</li> </ul>	5	9

<b>PRACTICAL</b>	<b>HOURS</b>	<b>MARKS</b>
<ol style="list-style-type: none"> <li>1. <b>Application of Book Design Principles:</b> Practical exercises in creating book layouts that incorporate design principles learned in theory.</li> <li>2. <b>File Preparation:</b> Preparing design files with appropriate resolution for both print and digital formats.</li> <li>3. <b>Usability Testing:</b> Testing layouts for usability, ensuring they meet the needs of the target audience in rural Assam.</li> </ol>	30	25



This course is crafted to provide students with the skills and knowledge necessary to excel in book layout and design using Microsoft Word, with a special focus on Assamese language and culture.

---

**Suggested Reading List (APA 7th Edition Style):**

1. Gaskin, S. (2010). *Microsoft Word 2010 Bible*. Wiley Publishing.
2. Lambert, J., & Cox, J. (2015). *Microsoft Word 2016 Step by Step*. Microsoft Press.
3. Murray, K. (2020). *Mastering Microsoft Word: A Step-by-Step Guide to the 2020 Version*. CreateSpace Independent Publishing Platform.
4. Parker, R. C. (2012). *Looking Good in Print: A Guide to Basic Design for Desktop Publishing*. Paraglyph Press.
5. Williams, R. (2014). *The Non-Designer's Design Book* (4th ed.). Peachpit Press.

**Serial No-136**  
**Patriotism and Early Freedom Fighters**  
**SEC0313603**  
**(By Mayang Anchalik College)**

**Distribution of Marks:**

- |  |                                     |
|--|-------------------------------------|
| 1. End Semester Examination  | : Total Marks : 30                  |
| 2. Sessional Examination   | : Total Marks : 20                  |
| 3. Practical(Seminar/ Presentation,<br>Home Assignment<br>and Group Discussion | : Total Marks : 25                  |
| ✓ Theory Credit  | : 3 Credit                          |
| ✓ Practical Credit   | : (Including seminar, workshop etc) |
| ✓ No. of Classes   | : 45 Classes                        |

**Particular of Course Designer:**

Dr Guneswar Deka  
Dept. of Political Science  
Mayang Anchalik College

**Learning Objective:**

Learning objectives Based on the study of Individual Early freedom fighters. The course introduces a wide contributions of Martyrs and design that actual love for Motherland. The objective is to study general attitude that have been produced by freedom fighters from varied political grounds. Selected individual freedom fighters have been discussed in the class.

**Course Structure:**

**Theory:**

- |          |   |  |
|----------|---|--|
| Unit I   | : | What is the meaning of Patriotism? Nature of Patriotism is not a bias concept, needs of real love of Matribhumi and scarifies of life for Matribhumi. (4 lectures) |
| Unit II  | : | Bhagat Singha and Khudiram Bose: Love and contribution for Matribhumi.   |
| Unit III | : | Rani Lakshmi Bai: Courage and bravery for Matribhumi.  |
| Unit IV  | : | Mangal Pandey: Background of Sepoy Mutiny.   |
| Unit V   | : | Subhas Chandra Bose: His declaration on Azad Bharat and Love for   |

- Matribhumi.
- Unit VI : Mahatma Gandhi : Satyagrah and Public Movement.
- Unit VII : Kushal Konwar and Kanaklata Barua and their contribution to Matribhumi.

**Learning Outcome:**

On successful explanation of the course. Students will be able to :

- ✓ Identify the facts of subjugation of Britishraj.
- ✓ Gain the knowledge of weakness and self interests of the people of Paradhin Bharat.
- ✓ Learn the sovereignty, unity and integrity of the Nation.

**Suggested Books:**

1. M.G. Agarwal: Freedom Fighters of India, 2008.
2. Charman Lal: Bhagat Singh Leader, 2019
3. Hiren Gohain , Ed. : The Role of Revolutionaries in the Freedom Struggle (Assamese).
4. Arun Bhattacharjee: Assam in Indian Independence, 1993
5. K.N. Dutt : Landmarks of the freedom struggle in Assam, 1958
6. [Dr. Dipti Sharma](#): Assamese Women in the Freedom Struggle: 1993
7. Ramesh Chandra Kalita : Swadhinata Andolon Aru Asom
8. Dr Guneswar Deka: Mantra Prasadha Mayong Aru Itihas, 1995
9. Dr Golok Chandra Goswami, Ed. : Bharatar Mukti Yudhat Panbaarit Rail Bagaruwa Itibritta, 1995.

\*\*\*\*\*

**Serial No-137**  
**Vermiculture And Vermicomposting Management**  
**SEC0313703**  
**(By Biswanath College)**

**Learning Objectives:**

- Understanding the importance of recycling
- Learning about the four R's of recycling
- Learning how to compost in a small space
- Learning about the benefits and process of vermicomposting
- Learning about vermicompost as an organic fertilizer

**Learning Outcomes:**

- Students will be able to compost in a limited space and describe the decomposing process.
- The interested students will get the knowledge of composting.
- They can generate employments.
- They will also turn towards organic farming,
- They will help to maintain the environment pollution free.
- They will get the knowledge of biodiversity of local earthworms.

**Theory (Credits: 2)**

**UNIT 1: GENERAL VERMICULTURE**

Introduction to vermiculture. Definition, history, economic importance, their value in maintaining soil structure, role as 4 R'S of recycling (reduces, reuse, recycle, restore), role in bio transformation of the residues generated by human activity and production of organic fertilizers. The matter and humus cycle (product, qualities). Ground population, transformation process in organic matter. Choosing the right worm. Useful species of earthworms. Local species of earthworms. Exotic species of earthworms. Complementary activities of auto evaluation.

## **UNIT 2: EARTHWORM BIOLOGY AND REARING**

Key to identify the species of Earthworms. Biology of *Eisenia fetida* a) Taxonomy Anatomy, physiology and reproduction of Lumbricidae. b) Vital cycle of *Eisenia fetida*: alimentation, fecundity, annual reproducer potential and limit factors (gases, diet, humidity, temperature, PH, light, and climatic factors). Complementary activities of auto evaluation.

## **UNIT 3: VERMICOMPOSTING TECHNOLOGY**

Small Scale Earthworm farming for home gardens - Earthworm compost for home gardens. Conventional commercial composting - Earthworm composting larger scale. Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing. Nutritional Composition of Vermicompost for plants, comparison with other fertilizers. Vermiwash collection, composition & use. Enemies of Earthworms, Sickness and worm's enemies. Frequent problems. How to prevent and fix them. Complementary activities of auto evaluation.

## **UNIT 4: PRODUCT AND MARKETING**

Effect of vermicompost application on soil and plant growth, Vermicompost as a organic manure a good substitute of fertilizers. Influence of pests and microbes on vermiculture, measures to control them. Marketing of vermicomposting products and financial support by governments and NGOs for vermiculture.

### **Practical Syllabus (Credits: 1)**

1. Field trip- Collection of native earthworms & their identification.
2. Study of Systematic position, habits, and habitat & External characters of *Eisenia fetida*.
3. Comparison of morphology & life stages of *Eisenia fetida* & *Eudriluseugeniae*.
4. Study of Vermiculture, Vermiwash & Vermicompost equipments, devices.
5. Preparation vermibeds, maintenance of vermicompost & climatic conditions.
6. Harvesting, packaging, transport and storage of Vermicompost and separation of life stages.
7. Study the effects of vermicompost & vermiwash on any two short duration crop plants.
8. Study the effects of sewage water on development of worms.
9. Project Report.

## References:

1. Bhatt J. V. & S. R. Khambata (1959) "Role of Earthworms in Agriculture" Indian Council of Agricultural Research, New Delhi.
2. Dash, M.C., B.K.Senapati, P.C. Mishra (1980) " Verms and Vermicomposting" Proceedings of the National Seminar on Organic Waste Utilization and Vermicomposting Dec. 5-8, 1984, (Part B), School of Life Sciences, Sambalpur University, Jyoti Vihar, Orissa.
3. Edwards, C.A. and J.R. Lofty (1977) "Biology of Earthworms" Chapman and Hall Ltd., London.
4. Lee, K.E. (1985) "Earthworms: Their ecology and Relationship with Soils and Land Use" Academic Press, Sydney.
5. Kevin, A and K. E .Lee (1989) " Earthworm for Gardeners and Fisherman" (CSIRO, Australia, Division of Soils)
6. Rahudakar V. B. (2004). Gandulkhatashivay Naisargeek Paryay, Atul Book Agency, Pune.
7. Satchel, J.E. (1983) "Earthworm Ecology" Chapman Hall, London. 8. Wallwork, J.A. (1983) "Earthworm Biology" Edward Arnold (Publishers) Ltd. London.
8. Christy, M. V. (2008) Vermitechnology, 1st edition, MJP Publishers.
9. Dash, M. C. (2012) Charles Darwin's Plough Tool for Vermitechnology, I. K. International Publishing House Pvt Ltd. New Delhi, India.
10. Kumar, A. (2005) Verms and Vermitechnology, APH Publishing.
11. National Institute of Industrial Research, (2010): The Complete Technology Book on Vermiculture and Vermicompost, Published by National Institute of Industrial Research, Delhi-7, India.

**Serial No-138**  
**Business Correspondence and Report Writing**  
**SEC0313803**  
**(By Mayang Anchalik College)**

Distribution of Marks:

- |  |  |
|--|--|
| 1. End Semester Examination: Total Marks | : 30   |
| 2. Sessional Examination: Total Marks    | : 20   |
| 3. Practical: Total Marks                | : 25   |
| ➤ Theory Credit                          | : 02   |
| ➤ Practical Credit 01                    |  |
| ➤ No. of Required Classes                | : 30 hours (Theory) + 30 hours (Practical)                                     |
| ➤ No. of Non-Contact Classes             | : 00   |
| ➤ Particulars of Course Designer         | : Dr. Ranjan Timsina, Assistant Professor,<br>English, Mayang Anchalik College |

**Course Description:** This course provides an in-depth exploration of business communication, focusing on the principles and practices of effective business correspondence and report writing. Students will learn to craft clear, concise and persuasive business documents, including emails, letters, memos, and reports, essential for professional success.

Learning objectives:

- ❖ Develop skills in writing clear and professional business correspondence
- ❖ Understand the structure and format of various business documents.
- ❖ Gain proficiency in writing detailed and analytical business reports.
- ❖ Gain knowledge on Advertising
- ❖ Learn to tailor messages to different audiences and purposes.
- ❖ Enhance proofreading and editing skills to ensure accuracy and clarity.

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

- ❖ Create effective business documents.
- ❖ Evaluate business documents.
- ❖ Promote new products

- ❖ Apply ethical communication practices.
- ❖ Reporting events, news etc.
- ❖ Film Reviewing
- ❖ Effective E-mail correspondence
- ❖ Use of digital communications like Social Media, Blogs etc. for Business

<p><b>Unit 1: Introduction to Business Communication</b></p> <ul style="list-style-type: none"> <li>• Overview of business communication</li> <li>• Importance and impact of effective communication in business</li> <li>• Types of business documents</li> </ul>	Hours :3	Marks:10
<p><b>Unit 2: Business Correspondence Basics</b></p> <ul style="list-style-type: none"> <li>• Structure and format of business letters</li> <li>• Professional email writing: etiquette and best practices</li> <li>• Crafting effective memos</li> </ul>	Hours :4	Marks:12
<p><b>Unit 3: Writing Persuasive Business Correspondence</b></p> <ul style="list-style-type: none"> <li>• Techniques for persuasive writing</li> <li>• Writing proposals and requests</li> <li>• Addressing complaints and resolving conflicts</li> </ul>	Hours :4	Marks:11
<p><b>Unit 4: Report Writing Fundamentals</b></p> <ul style="list-style-type: none"> <li>• Types of business reports: informational vs. analytical</li> <li>• Report structure: introduction, body, conclusion</li> <li>• Effective use of data and visuals</li> </ul>	Hours :4	Marks:11
<p><b>Unit 5: Research and Analysis for Reports</b></p> <ul style="list-style-type: none"> <li>• Conducting research and gathering data</li> <li>• Analyzing and interpreting data</li> <li>• Integrating research findings into reports</li> </ul>	Hours :4	Marks:11
<p><b>Unit 6: Writing and Editing Business Reports</b></p>	Hours :4	Marks:12



<ul style="list-style-type: none"> <li>• Drafting reports: clarity and coherence</li> <li>• Editing for grammar, style, and format</li> <li>• Reviewing and revising reports</li> </ul>		
<b>Unit 7: Advanced Report Writing Techniques</b> <ul style="list-style-type: none"> <li>• Writing executive summaries</li> <li>• Creating and presenting recommendations</li> <li>• Using charts, graphs, and tables effectively</li> </ul>	Hours :3	Marks:12
<b>Unit 8: Digital Communication and Trends</b> <ul style="list-style-type: none"> <li>• Impact of digital communication tools</li> <li>• Writing for different digital platforms (social media, blogs, etc.)</li> <li>• Best practices for digital correspondence</li> </ul>	Hours :4	Marks:12
<b>Total:</b>	30	91

**Practical:**

<b>Case Studies and Practical Applications</b> <ul style="list-style-type: none"> <li>• Analyzing real-world business correspondence and reports</li> <li>• Group projects: creating business documents based on case studies</li> <li>• Peer reviews and feedback</li> <li>• Order, Credit and Status Enquiry,</li> <li>• Letters of Inquiry,</li> <li>• Letters of Complaints,</li> <li>• Claims,</li> <li>• Adjustments,</li> <li>• Sales Letters,</li> <li>• Consumer Grievance Letters,</li> <li>• Letters under Right to Information (RTI) Act</li> </ul>	Hours :30	Marks :25
---	-----------	-----------

**Suggested Readings:**

Ashley A (2003) Oxford Handbook of Commercial Correspondence. – Oxford: Oxford University Press, 2003.

Duckworth M (2003) Business grammar and practice. Oxford: Oxford University Press.

Bahl, J.C. and Nagamia, S.M. (1974) Modern Business Correspondence and Minute Writing.

Balan, K.R. and Rayudu C.S. (1996) Effective Communication, Beacon New Delhi.

Monippalli, M.M. (1997), The Craft of Business Letter Writing, T.M.H. New Delhi.

Sadri Sorab, Sinha Arun and Bonnerjee Peter (1998) Business Ethics: Concepts and Cases Tata McGraw Hill Public Company Limited

Stephenson, James (1988) Principles and Practice of Commercial Correspondence, Pilman and Sons Ltd. London.

### Justification of Marks distributed

(Sessional and End-Semester Examinations)

Sessional Examination: 1 x 4 = 4 (all compulsory) = 04

2 x 3 = 6 ( 6 options-2 x 6=12) =12

5 x 2 = 10 (4 options -5 x 4=20) =20

---

Total =36

End Semester Examinations 1 x 5 = 5 (all compulsory) = 5

2 x 5 = 10 (10 options- 2 x 10=20) =20

5 x 3 = 15(6 options- 5 x 6=30) = 30

---

Total =30 = 55

Total= 55 +36 =91

**Serial No-140**  
**Gender Sensitization**  
**SEC0314003**  
**(By Puthimari College)**

**Distribution of Marks:**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks:20
3. Practical: Total Marks:25
  - Theory Credit: 02
  - Practical Credit: 01
  - No. of required Classes: 30 hours (Theory)+ 30 hours (Practical)

**Learning Objectives:**

- To understand the basic concepts of sex, gender, and patriarchy
- To understand the gender roles
- To understand the concepts of gender violence, and sexual harassment and their impact on society
- To understand concepts like gender mainstreaming, gender equality, and gender justice, and the constitutional and legal provisions related to these in the Indian context

**Course Outcome:**

The students shall be able to grasp the concept and importance of gender sensitization in their lives and society. They shall contribute towards creating a safe environment necessary for gender-inclusive growth in society.

**Theory**

**Unit 1: 10 Hours**

- What is sex? What is gender? What is patriarchy?
- Gender Roles

### **Unit 2: 10 Hours**

- Emerging Issues and Challenges: Gender violence, sexual harassment
- Impact on society

### **Unit 3: 10 Hours**

- Gender Equality, Gender Justice, constitutional and legal provisions
- Gender Mainstreaming

### **Practical**

#### **Unit 1: 30 Hours**

- Field Survey/Project Paper on any topic relevant to the paper  
Sample topics:
  - (1) Level of gender sensitization among the students
  - (2) Daily challenges of female students based on gender
  - (3) The practice of puberty ritual in the locality
  - (4) The role of the Indian Constitution in providing gender justice
  - (5) The legal provisions against gender violence/sexual harassment in India: An Evaluation

### **Reference Materials**

- **A Vindication of the Rights of Woman**, Mary Wollstonecraft, Penguin Classics, London, 2004.
- Depths of Patriarchy, Kamla Bhasin, <https://youtu.be/R0C0ii4yBw8>
- [Handbook on Sexual Harassment of Women at Workplace.pdf \(wcd.nic.in\)](http://www.wcd.nic.in)
- **Laughing Matters**, Kamla Bhasin and Bindia Thapar, Jagori, New Delhi, 2013
- [Patriarchy Dehumanises Men | Kamla Bhasin | TEDxRamanujanCollege \(youtube.com\)https://www.youtube.com/watch?v=TXXVfGAzcYw](https://www.youtube.com/watch?v=TXXVfGAzcYw)
- **Seeing Like a Feminist**, Nivedita Menon, Penguin Zubaan, Gurgaon, 2012
- **The Constitution of India**
- **The Second Sex**, Simone de Beauvoir, translated and edited by H. M. Parshley, Penguin, London, 1972.
- [Understanding Gender with Kamla Bhasin \(youtube.com\)https://www.youtube.com/watch?v=y6WYBu7vuYY&t=74s](https://www.youtube.com/watch?v=y6WYBu7vuYY&t=74s)

- **Understanding Gender**, Kamla Bhasin, Women Unlimited, New Delhi, 2014
- [We should all be feminists | Chimamanda Ngozi Adichie | TEDxEuston - YouTube](https://www.youtube.com/watch?v=hg3umXU_qWc)[https://www.youtube.com/watch?v=hg3umXU\\_qWc](https://www.youtube.com/watch?v=hg3umXU_qWc)
- **A World of Equals: A Textbook on Gender**, Susie Tharu, A. Suneetha, and Uma MaheswariBhrugubanda (Eds.), Orient Blackswan, Hyderabad, 2022.
- SAKSHAM: Measures of Ensuring the Safety of Women and Programmes for Gender Sensitization on Campuses, UGC, New Delhi, 2013

**Serial No-141**  
**Reading and Comprehension Skills**  
**SEC0314103**  
**(By Khagarijan College)**

**Total Marks: 75**

**Mark Division:** End Semester Examination Marks – 30  
Sessional Examination Marks – 20  
Practical Marks - 25

**Course Objective:** This course aims to develop proper reading and comprehension skill in a student. Reading and Comprehension skills are an integral part of Competitive Examinations. As such, the objective of the course is to give a student a platform to understand, analyze and interpret different types of texts. This course will also help the student learn key reading strategies to improve comprehension, retention as well as overall reading efficiency.

**Course Outcome:** By the end of the course, the students will have developed strong comprehension skills and critical reading ability.

<b>THEORY</b>	Hours	Marks
<b>Unit 1 - Understanding Types of Texts:</b> Narrative Texts, Descriptive Texts, Expository Texts, Analytical Texts, Comparative Texts, Informative Texts	10	15
<b>Unit 2 – Reading Strategies:</b> Skimming, Scanning, Active Reading, Mind Mapping, Paraphrasing, Summarizing, Questioning and Critical Reading	10	15
<b>Unit 3 – Introduction to Comprehension Skills:</b> Literal and Inferential Comprehension; Critical and Analytical Comprehension; Themes and Motifs; Decoding Time, Space and Context	10	20

<b>PRACTICAL</b>	Hours	Marks
<b>Unit 4 – Practicing Comprehension Skills:</b> <ul style="list-style-type: none"><li>• Analyzing examples of different types of texts</li><li>• Mind Mapping</li></ul>	30	25

- |   |  |  |
|---|--|--|
| • Reading unseen passages and solving questions |  |  |
|---|--|--|

**Books Recommended:**

- Adler, M. J., & Doren, C. V. (1972). *How to Read a Book: The Classic Guide to Intelligent Reading*. Simon & Schuster, New York.
- Smith, B. D. (2006). *The Reader's Handbook: Reading Strategies for College & Everyday Life*. Pearson.
- Spears, D. (2012). *Improving Reading Skills: Contemporary Readings for College Students*. McGraw Hill, New York.

**Prepared by:**

Maitreyee Dutta  
Assistant Professor  
Dept of English  
Khagarijan College, Nagaon



**Serial No-142**  
**Investment Analysis And Portfolio Management**  
**SEC0314203**  
**(By Khagarijan College)**

**Course objectives:**

- Gain a thorough understanding of different types of financial securities, including stocks, bonds, derivatives, and mutual funds.
- Gain knowledge in constructing and managing investment portfolios that align with specific investment goals, risk tolerance, and time horizons
- Learn the characteristics, valuation methods, and risk factors associated with each type of security
- Learn techniques for measuring, managing, and mitigating risk through diversification, hedging, and other strategies.

**Course Description:**

This course explores the principles and practices of investment analysis and portfolio management. Students will learn about different types of investments, valuation methods, portfolio construction, risk management, and performance evaluation. The course combines theoretical knowledge with practical applications through case studies and simulations to prepare students for effective investment decision-making.

UNITS	HOURS	MARKS
<p><b>Unit 1: Introduction to Investments</b></p> <ul style="list-style-type: none"> <li>● Overview of financial markets and instruments</li> <li>● Types of investments: equities, fixed income, derivatives, alternatives</li> <li>● Investment objectives and strategies</li> </ul>	<b>8</b>	<b>15</b>
<p><b>Unit 2: Securities and Financial Instruments</b></p> <ul style="list-style-type: none"> <li>● <b>Equities:</b> <ul style="list-style-type: none"> <li>○ Common and preferred stocks</li> <li>○ Stock indices and their uses</li> </ul> </li> <li>● <b>Fixed Income:</b> <ul style="list-style-type: none"> <li>○ Bonds and their characteristics</li> <li>○ Bond pricing and yield calculations</li> </ul> </li> <li>● <b>Derivatives:</b> <ul style="list-style-type: none"> <li>○ Options, futures, and swaps</li> <li>○ Basic pricing models and applications</li> </ul> </li> </ul>	<b>8</b>	<b>15</b>
<p><b>Unit 3: Financial Statement Analysis</b></p> <ul style="list-style-type: none"> <li>● Analyzing income statements, balance sheets, and cash flow statements</li> <li>● Key financial ratios: profitability, liquidity, solvency, and efficiency</li> <li>● Interpreting financial metrics and trends for investment decisions</li> </ul>	<b>8</b>	<b>15</b>
<p><b>Unit 4: Portfolio Construction</b></p> <ul style="list-style-type: none"> <li>● Asset selection and portfolio design</li> <li>● Portfolio constraints and objectives</li> <li>● Tools and techniques for portfolio construction</li> </ul>	<b>7</b>	<b>10</b>
<p><b>Unit 5: Risk Management in Portfolios</b></p> <ul style="list-style-type: none"> <li>● Types of risk: market risk, credit risk, liquidity risk</li> <li>● Risk measurement tools: Value at Risk (VaR), Conditional</li> </ul>	<b>7</b>	<b>10</b>

Value at Risk (CVaR) <ul style="list-style-type: none"> <li>Risk management strategies: hedging, diversification</li> </ul>		
<b>Unit 6: Alternative Investments and Their Role in Portfolios</b> <ul style="list-style-type: none"> <li>Overview of alternative asset classes: real estate, commodities, hedge funds</li> <li>Integration of alternatives into traditional portfolios</li> </ul>	<b>7</b>	<b>10</b>

**Prepared by:**

Dhanesh Sharma  
Assistant Professor  
Dept of Commerce  
Khagarijan College, Nagaon

**Serial No-143**  
**Artificial Propagation of Plants**  
**SEC0314303**  
**(By Chaiduar College)**

**Learning Objectives:**

- Understanding the basic concept of artificial plant propagation by studying the various types and methods of plant propagation.
- Learning about the process of preparation of nursery bed and its application in propagation of plants.
- Developing interest in horticulture.
- Learning about horticultural crops and its artificial propagation methods.
- Provide hands on training of Cutting, Layering, Grafting on various horticultural crops.
- Help students in income generation.

**Learning Outcomes:**

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

- Gain knowledge on methods of plant propagation.
- Prepare and maintain nursery beds.
- Explain and demonstrate the different methods of artificial plant propagation on different horticultural crops.
- Generate employment.

**THEORY**

<b>Unit Content</b>	<b>No. of classes</b>	<b>Marks</b>
---------------------	-----------------------	--------------

<b>Unit 1: Introduction to plant propagation</b> Plant Propagation: Definition, Types of Reproduction: Vegetative (Natural and Artificial), Asexual and Sexual; Importance of plant propagation.	4	2
<b>Unit 2: Methods of artificial propagation</b> Cutting, Layering, Grafting, Budding, Tissue culture.	6	10
<b>Unit 3: Maintenance</b> Sapling plantation, Pruning and Watering, Irrigation, Control of weeds and pests; Application of fertilizers, Hormones, Nutrients and Phytohormones.	6	5
<b>Unit 4: Preparation of nursery bed</b> Nursery site selection, Construction of seedbeds (Sunken bed, Level bed, Raised bed), Sowing of seeds, Transplantation of seedlings, Precautions.	7	6
<b>Unit 5: Importance of artificial propagation in horticultural crops</b> Horticultural crops: Types and examples (Fruits, vegetables, ornamental, aromatic and medicinal plants). Use of artificial propagation in Rose, Orchids, Lemon, Mango; Importance of horticulture.	7	7

## PRACTICAL

Hands on training of Cutting, Layering, Grafting on some plant species like Lemon, Mango, Rose, Tea etc.	30	25
--	----	----

## Suggested Readings

1. Baruah PK, Das MR, Saikia D (2022) Horticultural Practices and Post-Harvest Technology, Mahaveer Publications, Dibrugarh.

2. Singh AK, Kumar A (2023) Plant Propagation and Nursery Management, SK Kataria and Sons.
3. Dhumal KN, Shitole SM, Pagariya MC, Taware PB (2022) Nursery and Gardening Management, Nirali Prakashan.
4. Dwivedi DH, Bharti N (2018) Nursery Management of Horticultural Crops, Satish Serial Publishing House.
5. Hartmann HT, Kester DE, Davies FT, Geneve RL (2015) Plant Propagation: Principles and Practices, Pearson.

**Serial No-144**  
**Effective Decision Making**  
**SEC0314403**  
**(By Handique Girls College)**

DEPARTMENT OF PSYCHOLOGY  
GAUHATI UNIVERSITY  
SKILL ENHANCEMENT COURSE (SEC)

1. Semester: Third
2. Course name: **Effective Decision Making**
3. Credit: 3 credits (2+1)

Unit no.	Unit content
1	<b>Introduction to decision making:</b> Meaning and definition of decision making and effective decision making, Stages of decision making, Models of decision making, Significance of making good decisions.
2	<b>Use of Effective decision making:</b> Decision making at workplace, skills and competencies required for effective decision making, errors in decision making, Creativity and decision making.

**Practicum: students have to carry out any practicum based on the syllabus or any related topic.**

5. Recommended Books/References:

- Adler, R.B & Protocor, 11.F (2009). Communication Goals and Approaches. Wadsworth Cengage Learning, India Chadha,

1	<b>Introduction to decision making:</b> Meaning and definition of decision making and effective decision making, Stages of decision making, Models of decision making, Significance of making good decisions.
2	<b>Use of Effective decision making:</b> Decision making at workplace, skills and competencies required for effective decision making, errors in decision making, Creativity and decision making.

**Practicum: students have to carry out any practicum based on the syllabus or any related topic.**

5. Recommended Books/References:

- Adler, R.B & Protocor, 11.F (2009). Communication Goals and Approaches. Wadsworth Cengage Learning, India Chadha,
- N.K. & Bhatia, H. (2014). Career development-different voices, different choices. The Readers Paradise: New Delhi,
- Sheffield, R.M., Montgomery, R.J., & Moody, P.G. (2009), Developing soft skills. Pearson Education, India.

6. Paper offered by: Department of Psychology.

  
Principal-Cum Secretary  
Handique Girls College  
Gauhati-781001

Serial No-145

আবৃত্তিকলা  
SEC0314503

(By Dhing College)

অসমীয়া বিভাগ  
ধিং মহাবিদ্যালয়

Syllabus for 3<sup>rd</sup> Sem (FYUGP) Skill Enhancement

বিষয়ঃ অসমীয়া

পাঠ্যক্রমৰ শিৰোনাম: আবৃত্তি কলা

3 (Theory-2 + Practical: 1)

Total Marks: 75 (Theory: 50+Practical: 25)

No. of required classes: 30 hrs (theory) + 30 hrs (practical)

Unit 1: আবৃত্তিৰ ইতিহাস আৰু পৰম্পৰা।

Unit 2: আবৃত্তিৰ উপস্থাপন-প্ৰস্তুতি, কাব্যবোধ, আৰু স্মৃতি

Unit 3: আবৃত্তিৰ কলা কৌশল- উচ্চাৰণ, শব্দজ্ঞান, সুৰ, ছন্দ আৰু

Unit 4: ব্যৱহাৰিক পৰীক্ষা (কেইটামান প্ৰতিনিধিত্বমূলক অসমীয়া

১. বনকুঁৱৰী ( চন্দ্ৰকুমাৰ আগৰৱালা

2. আমি দুৱাৰ মুকলি কৰোঁ (দেৱকান্ত বৰুৱা)

3. মোৰ দেশ (হীৰেন ভট্টাচাৰ্য)

4. আঘোণৰ কুঁৱলী (কেশৱ মহন্ত)

গ্ৰন্থপঞ্জী:

অসমীয়া কবিতাৰ ছন্দ- মহেন্দ্ৰ বৰা

ছন্দ শিল্পৰ ভূমিকা- নৱকান্ত বৰুৱা

বাকশিল্প , আবৃত্তি আৰু সংলাপ- ভূপেন চক্ৰৱৰ্তী

বিষয়: আবৃত্তি- অমিয় চট্টোপাধ্যায়, দেবদুলাল বন্দ্যোপাধ্যায়



**Serial No-146**

**Historical Tourism in North East India**

**SEC0314603**

**(By Juria College)**

**FORMAT OF SEC COURSE:**

15. Semester: III
16. Course Name: 1). HISTORICAL TOURISM IN NORTH EAST INDIA, Credit: 3 Credits
17. Credit Distribution (Theory/Practical): Theory: 3 Credits
18. Content (Unit wise with a unit title): Unit-1: Theoretical Aspect of Tourism
  - 2: Ancient remains and important tourist places of NEI
  - 3: Architectural Heritage
  - 4: Fairs and Festivals of North East
19. Recommended Books/References: HISTORICAL TOURISM IN NORTH EAST INDIA.
20. Paper Offered by: **Juria College**

**Serial No-147**

**Ornamental Fish & Fisheries**

**SEC0314703**

**(By Nalbari College)**

Distribution of Marks:

1. End Semester Examination Total Marks: 30
2. Sessional Examination Total Marks:20
3. Practical Total Marks:25
  - \* theory Credit:02
  - \*Practical credit:01
  - \*Number of Required Classes 30 hours (Theory )+30hours (Practical)
  - \*Particulars of Course Designer : Department of Zoology,Nalbari College,Nalbari

**Course objectives:**

To provide an understanding of the Ornamental Fishes and Fisheries

To provide a knowledge on the diversity of ornamental fishes of North East India.

To provide a knowledge on the diversity of Aquarium plant of North East India.

To provide knowledge on Construction and management of Home Aquarium with feeding, breeding of the Ornamental Fishes.

**Learning outcome:**

Students will be able to identify the ornamental fishes and aquarium Plants of North East India and the diversity of the Ornamental Fishes and aquarium Plants of NE India. The students will also be able to know the skill of Management of Home aquarium, feeding, Breeding of Ornament Fishes.

Unit-1 Ornamental Fish Diversity of North East India.

5 Morphology, Habit and Habited and diversity.

Unit-2. Aquarium plant diversity in the wetland of Assam.

4

Macrophytes and Microphytes Aquarium plant.

Unit-3 Construction and management of Home Aquarium.

8

Origin of keeping OF ,Usefulness and limitation of Home aquarium, types of aquarium, Establishment of aquarium, site for an aquarium, heating, filtration ,decorative toy arrangement, base of aquarium. Selection and Number of aquarium fish in an aquarium.

Unit-4 Natural feed and Feed formulation of Ornamental Fish

4

Forms of diets and ingredients.

Unit-5 Natural Breeding of Tricogaster species

5

Selection of brooders and maintenance of water parameter during breeding.

Unit-6. Health management

4

Diseases and their Prevention and control measures

### **Practical's**

7. Identification of Ornamental Fish and aquarium plant

8. Culture of Indigenous ornamental fish in Aquarium

9. Estimation of Physico-chemical characteristics of Aquarium water

10 Temperature, pH ,Dissolved oxygen( $O_2$  ) and Free  $CO_2$

### **Suggested Readings:**

1. Breeding and culture of fresh water ornamental fish, Archana Sinha, Editor-Pramod Kumar Pandey,18 Febreury2021 ISBN-13:978-9390512232
2. Biology of Indigenous Freshwater Ornamentl Fishes of India Sagar chandra Mandal and Parmod Kumar Pandey Narendra Publishing House,Delhi-110085
3. Ornamental Fish Keeping in aquarium , Sonowl, Kalita and Rahman ,Mahaveer Publication,Dibrugrh, Assam.

**Serial No-148**  
**Physics Workshop Skills**  
**SEC0314803**  
**(By Handique College)**

Credits: 3 (Theory: 2, Lab: 1)  
Marks: 75 (Theory: 50 + Practical: 25)

Distribution of Marks:

- |   |    |
|---|----|
| 1. End Semester Examination: Total Marks: | 30 |
| 2. Sessional Examination: Total Marks:    | 20 |
| 3. Practical: Total Marks:                | 25 |

Theory Credit	02
---------------	----

Practical Credit	01
------------------	----

No. of Required Classes 30 hours (Theory) + 30 hours (Practical)

No. of Non-contact Classes                      NIL

**Particulars of Course Designer : Department of Physics, Handique Girls' College,  
Guwahati**

**Learning Objectives:**

The paper aims

1. To prepare students to learn hands-on how to handle different types of length measuring instruments.
2. To prepare students to handle multimeter so as to measure various electrical quantities such as resistance, current, voltage, etc.
3. To familiarize students with machine processing of articles as well as to prepare them to use some basic workshop tools such as drill machine, vice, etc.
4. To familiarize students with the workings of lever, gear and pulley.

### **Course Learning Outcomes:**

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

- To use the appropriate length measuring instruments for measuring length of various dimensions from fraction of a millimeter to metre.
- To measure various electrical quantities.
- Learn to handle drill machine and vice.
- Learn how machines are used to process metallic articles.
- Understand how gear, braking systems work in vehicles.

### **THEORY**

<p>Unit I: Length Measurement Skill</p> <p>Familiarization with meter scale, Vernier caliper, Screw gauge and their utility. Measure the dimension of a solid block, volume of cylindrical beaker/glass, diameter of a thin wire, thickness of metal sheet, etc. Use of Sextant to measure height of building or height of an object.</p>	<p>4 Hours</p>	<p>5 Marks</p>
<p>Unit II: Mechanical Skill</p> <p>Overview of manufacturing methods: casting, foundry, machining, forming and welding. Types of welding joints and welding defects. Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood. Concept of machine processing, introduction to common machine tools like lathe, shaper, drilling, milling and surface machines. Cutting of a metal sheet using blade. Smoothing of cutting edge of sheet using file. Drilling of holes of different diameter in metal sheet and wooden block. Use of bench vice and tools for fitting.</p>	<p>10 Hours</p>	<p>15 Marks</p>
<p>Unit III : Electrical and Electronic Skill</p> <p>Use of Multimeter. Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Operation of oscilloscope. Making regulated power supply.</p>	<p>10 Hours</p>	<p>15 Marks</p>
<p>Unit IV : Elements of Prime Movers</p> <p>Mechanism of gear system, wheel, fixing of gears with motor axel. Lever mechanism, types of levers, lifting of heavy weight using lever. braking systems: drum brake, disk brake and hydraulic brake, working of pulleys.</p>	<p>6 Hours</p>	<p>15 Marks</p>

## PRACTICAL

<ol style="list-style-type: none"><li>1. To measure dimension of a solid block, volume of cylindrical beaker, diameter of thin wire, thickness of metal sheet using appropriate measuring instruments.</li><li>2. To measure height of building or the separation between two horizontal marks on the wall of the lab using sextant.</li><li>3. To cut a metal sheet using a hacksaw blade and smoothening of the cutting edge using a file.</li><li>4. To drill three holes of various sizes in a piece of wood and to fit three given sets of nuts and bolts on the piece.</li><li>5. Use a multimeter to measure resistance, voltage in a cell, mains supply and dc current flowing through a given circuit.</li><li>6. Use a CRO to measure peak-to-peak voltage and frequency of a given sine wave from a function generator.</li><li>7. To use soldering of electrical circuit having discrete components on PCB.</li><li>8. To construct a regulated power supply on a breadboard.</li></ol>	30	25 Marks
---	----	----------

### Reference Books:

- [1] A text book in Electrical Technology-B L Theraja – S. Chand and Company.
- [2] Performance and design of AC machines – M.G. Say, ELBS Edn.
- [3] Mechanical workshop practice, K.C. John, 2010, PHI Learning Pvt. Ltd.
- [4] Workshop Processes, Practices and Materials, Bruce J Black 2005, 3rd Edn., Editor Newnes [ISBN:0750660732]
- [5] New Engineering Technology, Lawrence Smyth/Liam Hennessy, The Educational Company of Ireland [ISBN:0861674480]

**Serial No-149**  
**Applied Chemistry in Everyday Life-II**  
**SEC0314903**  
**(By Guwahati College)**

1. End Semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical (Industrial visit): Total Marks: 25
  - ❖ Theory Credit 03
  - ❖ Practical Credit 01
  - ❖ No. of Required Classes 30 hours (Theory)
  - ❖ Particulars of Course Designer: Department of Chemistry, Guwahati College

**Course Objectives:**

1. Understanding of the basic fundamental concepts that underpin a wide range of daily used consumer products.
2. Providing a deeper knowledge of the formulation of frequently used products, considering their safety and environmental impact.
3. Developing chemical knowledge that enable students to assess the composition and efficacy of daily used consumer goods.

**Learning outcomes:**

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

1. Recognize the importance of basic fundamental concepts underlying a variety of consumer products.
2. Analyze the ingredients of everyday used consumer products to assess their safety and evaluate its impact on environment.

Utilize the concept of basic chemical knowledge that helps to make sensible decisions on the use of consumer products based on health, safety, and the environment.



**Unit 1: Pharmaceuticals and Personal Health (10 hours)**

Chemical composition and mechanisms of common pain relievers (e.g., paracetamol, ibuprofen). Analysis of the efficacy and safety of combination drugs. Impact of long-term use and potential side effects. Use of Vaccines, Comparative analysis of brand-name vs. generic medications. Chemical structure and role of essential vitamins in the body. Safety concerns and regulations surrounding dietary supplements.

**Unit 2: Cosmetics and Beauty Products (10 hours)**

Chemical composition of foundations, lipsticks, and mascaras. Role of pigments, binders, and preservatives in cosmetics. Chemistry of moisturizers, serums, and anti-aging products. Role of active ingredients like retinoids, peptides, and antioxidants. Differences between chemical and physical sunscreens. Analysis of SPF ratings and the impact of sunscreen on skin health.

**Unit 3: Petroleum Products (10 hours)**

Introduction to petroleum products, Types of Petroleum products: fuels, lubricants, petrochemicals etc. Crude oil, refining processes: distillation, cracking, reforming, hydrotreating, Quality control and standards (e.g., octane number, cetane number, viscosity, sulfur content). Emission standards, Pricing, trading, and economics of petroleum products. Impact of geopolitical factors on the petroleum products market, Sustainability and the future of petroleum products.

**PRACTICAL:** Industrial Field Visit-II (In lieu of PRACTICAL) to familiarise students with various chemical processes / technologies, students need to submit a detailed report on their observations and learning outcomes.

**Serial No-150**  
**Computer Fundamentals and Mathematical Computation**  
**SEC0315003**  
**(By Pragjyotish College)**

Distribution of Marks:

1. End semester Examination: Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- Number of required classes 30
- Course design by, Department of Mathematics, Pragjyotish College.

Objective:

The basic objectives of the course are.

- i) To introduce operating systems.
- ii) To introduce MS Excel and graphical representation of data in MS Excel.
- iii) To introduce computer programming language.
- iv) Plotting graphs of different mathematical functions using programming language.

Learning outcome:

Students will learn about the basic knowledge of operating system and other related knowledge of a computer. They will have the knowledge of programming language and different software. They will learn to sketch/plot graphs/curves of different mathematical functions using such software.

Unit	Content	No of Classes	Credit
Unit-I	Central Processing Unit; Computer Memory; Operating Systems; Compiler and Interpreter; Software and its types; Computer codes and arithmetic:	12	3 credit

	Binary and Decimal number representation.		
Unit-II	Introduction to MS Excel; Basic Mathematical function- sum, average etc.; <b>Entering and editing data;</b> <b>Creating Charts- Pie charts, bar diagram etc;</b>	6	
Unit- III	Introduction to Programming Language:Sci Lab /Mathematica /Pythan/ C /C++ etc; Plotting different mathematical function using any language: $ax$ , $[x]$ (greatest integer function), $ ax+b $ , $\sqrt{ax+b}$ , $x^{\pm n}$ , $x^{\frac{1}{n}}$ , $\frac{ x }{x}$ , $\sin\left(\frac{1}{x}\right)$ , $e^{ax+b}$ , $\log(ax+b)$ , $\sin(ax + b)$ , $\cos(ax + b)$ , $\frac{1}{ax + b}$ ; Complex numbers and their representations, Operations like addition, Multiplication, Division, Modulus. Graphical representation of polar form;  Plotting the graphs of polynomial of degree 3, 4 and 5 and their first and second derivatives.	12	

Suggested Books:

1. E.Balagurusamy, *Fundamentals of Computers*, Tata McGraw Hill Education Private Limited.
2. Noreen Brown, Barbara Lave, Hallie Puncocar, Julie Romey, Mary Schatz, Art Schneider, and Diane Shingledecker, *Beginning Excel 2019*, Open Oregon Educational Resources

3. Achuthsankar S. Nair & HemaRamchandran, *SCILAB (A Free Software to MATLAB)*,  
S. Chand Publishing.

\*\*\*\*\*

**Serial No-151**  
**Women & Politics in India**  
**SEC0315103**  
**(By B.H. College)**

Distribution of Marks:

1. End Semester Examination: Total Marks: 30
2. Sessional Examination; Total Marks: 20
3. Practical: Total Marks: 25

Learning Objectives

To introduce the students with the issues related to women's political participation and representation in India.

Learning Outcomes

After completing this course, students will be able to

- Understand the meaning, nature, importance of political participation and representation and theories related to the said topic.

Theory

Unit 1: Women's Political Participation and Representation in India

- Concept of Political Participation and Representation
- Historical Interpretation on Women's Participation
- Women's Representation in Politics: Trends
- Women's Political Participation

Unit 2: Theorizing Women's Political Participation

- Liberal Perspective
- Radical Perspective
- Socialist Perspective
- Marxist Perspective

Suggested Readings

- Bhargava, R and Acharya, A. (eds.)Political Theory: An Introduction. New Delhi: Pearson Longman, 2008
- Gauba, O.P., An Introduction to Political Theory, MacMillan India Ltd, Delhi, 2007
- Women in Politics: Participation and Governance 1st Edition by B. K. Malhotra, 2011
- Andrew Heywood, Political Ideologies: An Introduction, Palgrave Macmillan, 2012

\*\*\*\*\*

Serial No-152

अनुवाद-कला और व्यावहारिक अनुवाद के विविध आयाम

SEC0315203

(By Dept. of Hindi, G.U.)

इकाई	क्रेडिट	पाठ्य-विषय	कक्षा-संख्या	अंक (बाह्य परीक्षण+ आंतरिक परीक्षण+व्यावहारिक परीक्षण)
1	1	अनुवाद: परिभाषा,स्वरूप,प्रक्रिया और उपयोगिता;शब्दानुवाद, भावानुवाद और सटीक/आदर्श अनुवाद के स्वरूप	15	25 (10+7+8)
2	1	कविता,कहानी, उपन्यास और निबन्ध का अनुवाद : हिन्दी से अंग्रेजी और असमीया में तथा असमीया से हिन्दी में	15	25 (10+7+8)
3	1	ज्ञान, विज्ञान और विधि से संबंधित सामग्रियों का अंग्रेजी से हिन्दी में अनुवाद ; कार्यालयी पत्राचार (सरकारी पत्र, अर्ध-सरकारी पत्र, परिपत्र, ज्ञापन,कार्यालयी आदेश, अनुस्मारक, अधिसूचना) और पत्रकारिता से जुड़ी सामग्रियों का अंग्रेजी से हिन्दी में और हिन्दी से अंग्रेजी में अनुवाद	15	25(10+6+9)

**द्रष्टव्य:** व्यावहारिक परीक्षण के अन्तर्गत पाठ्यक्रम में उल्लिखित सर्जनात्मक साहित्य और गैर-सर्जनात्मक साहित्य (ज्ञान, विज्ञान, विधि, कार्यालयी, पत्रकारिता आदि) के दो-दो नमूनों के अनुवाद सम्मिलित रहेंगे। विभागीय प्राध्यापकगण, महाविद्यालय के अध्यक्ष/शिक्षण-संस्थान के प्रमुख अथवा उनके द्वारा नामित प्रतिनिधि के द्वारा मौखिकी-सहित मूल्यांकन-कार्य सम्पन्न होगा।

**सन्दर्भ ग्रन्थ:**

1. अनुवादविज्ञान-डॉ० भोलानाथतिवारी, किताबघर प्रकाशन, नयी दिल्ली ।
2. अनुवाद-सुधा(भाग-1 एवं भाग-2)--डॉ० अच्युतशर्मा(संपा.), शब्दभारती, गुवाहाटी ।
3. अनुवाद कला- डॉ० एन. ई. विश्वनाथ अय्यर, प्रभात प्रकाशन, दिल्ली ।
4. अनुवाद: सिद्धान्त एवं व्यवहार- डॉ० जयन्ती प्रसाद नौटियाल, राधाकृष्ण प्रकाशन, नयी दिल्ली ।
5. कार्यालय सहायिका- हरिबाबू कंसल, केन्द्रीय सचिवालय हिन्दी परिषद, दिल्ली ।
6. कार्यालय प्रवीणता- हरिबाबू कंसल, सुधांशु बंधु, नयी दिल्ली ।
7. पत्रकारिता और पत्रकारिता -- अरुणजैन, हिन्दीबुकसेंटर, आसफअलीरोड, नयी दिल्ली ।
8. पत्रकारिताकेनएआयाम-एस.के. दुबे, लोकभारती प्रकाशन, इलाहाबाद ।
9. सिर्फपत्रकारिता-अजयकुमारसिंह, लोकभारती प्रकाशन, इलाहाबाद ।
10. How to Translate into English -- R.P. Sinha, Bharati Bhawan, Patna.
11. हिन्दी-English एक्सपर्ट Translator -- S.C. Gupta, Arihant Publications Private Limited.

- पूर्व-योग्यता : हिन्दी-सहित 10वीं कक्षा-उत्तीर्ण
- स्नातक-गुण :

**कोर्स का लक्ष्य:** विद्यार्थियों को अनुवाद-सिद्धान्त की सामान्य जानकारी प्रदान करके सर्जनात्मक साहित्य, ज्ञान-विज्ञान का साहित्य, कार्यालयी दस्तावेज़, पत्रकारिता से जुड़ी सामग्री इत्यादि के व्यावहारिक अनुवाद के सन्दर्भ में उनकी दक्षता में वृद्धि लाना प्रस्तुत पाठ्यक्रम का मूल लक्ष्य है ।

**शिक्षण-उपलब्धि:** अनुवाद को पाठ्यक्रम इस संबंधित से पहलुओं व्यावहारिक एवं सैद्धांतिक के कौशल-गया किया तैयार में रूप इस है ताकि विद्यार्थीगण अनुवाद करके प्राप्त ज्ञान आधारभूत विषयक-कला-। सकें कर ग्रहण को कार्य-अनुवाद पर तौर के आजीविका

- सैद्धान्तिक क्रेडिट: 2
- व्यावहारिक क्रेडिट: 1
- आवश्यक कक्षाओं की संख्या: 45  
प्रत्यक्ष कक्षाएँ : 45  
अप्रत्यक्ष कक्षाएँ: 0
- पाठ्यक्रम-डिजाइनर का विवरण :  
नाम: पूजा शर्मा  
संस्थान: गौहाटी विश्वविद्यालय  
ईमेल : [poojasarmahindi@gauhati.ac.in](mailto:poojasarmahindi@gauhati.ac.in)



Serial No-152

अनुवाद-कला और व्यावहारिक अनुवाद के विविध आयाम

SEC0315203

(By LOKD College)

2022  
Principal  
LOKD College, Dhekrajali  
Sonitpur, Assam

चार वर्षीय स्नातक पाठ्यक्रम

विषय : हिन्दी

छमाही : तृतीय

कोर्स-कोड : HIN SEC 3

कोर्स का नाम : अनुवाद-कला और व्यावहारिक अनुवाद के विविध आयाम

कोर्स-लेवल : 100-199

कुल अंक : 75

बाह्य परीक्षण : 30

आंतरिक परीक्षण : 20

दकाई	क्रेडिट	पाठ्य-विषय	कक्षा-संख्या	अंक (बाह्य परीक्षण+ आंतरिक परीक्षण+ व्यावहारिक परीक्षण)
1	1	अनुवाद : परिभाषा, स्वरूप, प्रक्रिया और उपयोगिता; शब्दानुवाद, भावानुवाद और सटीक/आदर्श अनुवाद के स्वरूप	15	25 (10+7+8)

				आंतरिक परीक्षण+ व्यावहारिक परीक्षण)
1	1	अनुवाद : परिभाषा, स्वरूप, प्रक्रिया और उपयोगिता; शब्दानुवाद, भावानुवाद और सटीक/आदर्श अनुवाद के स्वरूप	15	25 (10+7+8)
2	1	कविता, कहानी, उपन्यास और निबन्ध का अनुवाद : हिन्दी से अंग्रेजी और असमीया में तथा असमीया से हिन्दी में	15	25 (10+7+8)
3	1	ज्ञान, विज्ञान और विधि से संबंधित सामग्रियों का अंग्रेजी से हिन्दी में अनुवाद ; कार्यालयी पत्राचार (सरकारी पत्र, अर्ध-सरकारी पत्र, परिपत्र, ज्ञापन, कार्यालयी आदेश, अनुस्मारक, अधिसूचना) और	15	25 (10+6+9)

To  
Station

Skill Enhancement Course (SEC)

**Serial No-153**  
**Spoken Arabic for Placement**  
**SEC0315303**  
**(By Mangaldai College)**

Skill Enhancement Course (SEC)

Spoken Arabic for Placement

FYUGP 3<sup>rd</sup> Semester

Credit=03 (75 Marks)

---

**Distribution of Marks:**

- |                              |                 |
|------------------------------|-----------------|
| 1. End Semester Examination: | Total Marks: 30 |
| 2. Sessional Examination:    | Total Marks: 20 |
| 3. Practical:                | Total Marks: 25 |
- Theory Credit: 02
  - Practical Credit: 01
  - No. of Required Classes: 30 Hours (Theory)+ 30 hours (Practical)
  - Particulars of Course Designer: Department of Arabic, Mangaldai College

**Learning Objectives:**

- To familiarize the students with the syllabi and pattern of Arabic for placement in India and Abroad
- To discuss Speaking and composing techniques of Arabic for getting placement.
- To install practical skills among students that would benefit them for employment.

- To prepare them for facing Competition for their placement.
- To enrich their grammar, composition, comprehension, and vocabulary skills.

**Learning Outcomes**

- Students will be able to explore career opportunities after successful completion of this course.
- Make them better prepared for placement.
- Gain confidence to go forward for better engagement.
- To increase interest to familiar with Arabic language and literature.

**THEORY: =50 Marks**

Topic	Hour	Marks
<b>Unit-1 : Basic of Language Skill</b> <ul style="list-style-type: none"> <li>❖ Introduction to Arabic Alphabets</li> <li>❖ Combination of letters and reading comprehension</li> <li>❖ Error Correction &amp; Sentence making</li> <li>❖ Reading, Writing &amp; Pronunciation practice.</li> </ul>	10	15
<b>Unit-2 : Grammar of Initial stage</b> <ul style="list-style-type: none"> <li>❖ Noun &amp; Pronoun</li> <li>❖ Person, Gender and Number</li> <li>❖ Preposition</li> <li>❖ Subject and Predicate</li> </ul>	10	15
<b>Unit-3 : Development of Vocabulary</b> <ul style="list-style-type: none"> <li>❖ Hospital, Medicine, Diseases &amp; Equipment</li> <li>❖ Business &amp; Money</li> <li>❖ Means of Transportation</li> <li>❖ Animals &amp; Birds</li> </ul>	05	10
<b>Unit-4 : Communication</b> <ul style="list-style-type: none"> <li>❖ Interview Skill</li> <li>❖ Conversation in Classroom</li> <li>❖ Conversation over Telephone</li> <li>❖ Conversation at College</li> </ul>	05	10

**PRACTICAL: =25 Marks**

Topics	Hours	Marks
❖ Group Discussion. ❖ Solving of Previous Question Papers. ❖ Practice of hand writing. ❖ Vocabulary and Language Games through ICT Tools. ❖ Mock Test.	30	25

**References:**

1. Ali, Dr. Sayed, Arabic for Beginners, International Edition, 1970
2. Rahman, S.A, Let's Speak Arabic, Goodword Books Publication, 2002
3. Faynan, imad Rafi-el, The Essential Arabic, Goodword Books Publication, 1998
4. Kalam, Dr. Abul, Let's Translate English-Arabic-English, Markaz Media & Publications, 2018
5. Haywood, J.A, & Nahmad, H.M, A new Arabic grammar, Lund Humphries Publication, 1993
6. Rahman, S.A, Let's Speak Arabic,
7. Ali, Hydar, Muhammad, Asomia Arabi Byakaran

**Serial No-154**  
**Small Poultry Farming**  
**SEC0315403**  
**(By ADP College)**

**Skill Enhancement Course (SEC)**  
**SMALL POULTRY FARMING**  
**Credits: 3**  
**Marks: 75**

**Distribution of Marks:**

1. End Semester Examination: Total Marks:	30
2. Sessional Examination: Total Marks:	20
3. Practical: Total Marks:	25
➤ Theory Credit	02
➤ Practical Credit	01
➤ No. of Required Classes	30 hours (Theory) + 30 hours (Practical)
➤ Particulars of Course Designer	Gauhati University

**Learning objectives:**

- ❖ Understanding and knowledge of Poultry Breeds, Poultry housing, Feed and nutrition management.
- ❖ Learn about Poultry Health Management, Breeding and Reproduction techniques, Poultry production systems and Waste Management in Poultry Farming.
- ❖ Understanding the post production management and record keeping process of Poultry Business Management.
- ❖ Hands on training for the preparation of poultry breeds, maintenance of poultry house, insect and diseases management and waste management in poultry farming etc.
- ❖ Help the students to learn a means of self-employment and income generation.

**Learning outcomes:**

- Skilled on Poultry Breeds, Poultry Nutrition, Housing and Environment Management.
- Disease Prevention, Health Management Breeding and Hatchery Management.

- Skilled on Poultry Breeds, Poultry Nutrition, Housing and Environment Management.
- Disease Prevention, Health Management Breeding and Hatchery Management.
- Manage various diseases, wastage and record keeping process.
- Market and Economic Analysis: Ability to analyze market trends, determine pricing
- Learn the way to self – employment and income generation.

### THEORY

**UNIT 1: Preparation and maintenances: 10**

Housing Requirements, Handle birds in poultry sheds, Provide feed and water for birds, Maintain health of birds at poultry farm, Component of poultry farming, Layer Poultry Farming,

**UNIT 2: Harvesting: 10**

Harvest eggs and meat from the birds, Maintain post- harvest cleanliness, Ensure safety, hygiene and sanitation of poultry farm, Egg production, Egg collection system.

**UNIT 3: Marketing and Entrepreneurship: 10**

Build entrepreneurship and marketing skills, complete documentation and record keeping related

and sanitation of poultry farm, Egg production, Egg collection system.

**UNIT 3: Marketing and Entrepreneurship: 10**

Build entrepreneurship and marketing skills, complete documentation and record keeping related to poultry farming

**PRACTICAL: 25**

1. Visit to poultry farm.
2. Preparation of poultry farm.
3. Maintenances of Poultry farm.
4. Harvesting of eggs.
5. Transportation methods.

**Suggested Readings:**

- Hand Book Of Poultry Farming And Feed Formulation by Eiri, 2007.
- Handbook of Livestock and Poultry production and Management by Denesh kumar, Rashmi kumari.
- Text book on Commercial Poultry production and Hatchery Management by Dr. M. Murugan.
- Poultry Management and Production by Jagdish Prasad.
- Poultry Diseases: A Guide For Farmers & Poultry Professionals by J.L. Veged.

Course designed by Department of Herbal Science and Technology

ADP College, Nagaon

**Serial No-156**  
**Public Speaking Skill**  
**SEC0315603**

2016  
2017  
2018  
2019  
2020

*Skill Enhancement Course (SEC)*  
**Public Speaking Skill**  
**Credit: 3 (75 marks)**  
3<sup>rd</sup> Semester

**Distribution of Marks**

1. End Semester Examination: Total Marks: 30
2. Internal assessment: Total Marks: 20
3. Practical: Total Marks: 25

- Theory Credit 02
- Practical Credit 01
- No of required classes 30 hour (Theory) + 30 hours (Practical)
- Particulars of course designer: Department of Education, Lokanayak Omeo  
Kumar Das College, Dhekiajuli

**Learning Objectives**

- ✓ Understand the basics of public speaking skills
- ✓ Understand the basics of communication skills
- ✓ Learn various ways of becoming a better public speaker

**Course Outcome:**

- ✓ After completing this course, students will be able to acquire the capacities of public speaking skill.

**Course contents**

**a. Theory (2 Credits)**

Units	Contents
-------	----------

e)



a. Theory (2 Credits)

Units	Contents
<b>Unit-1</b>	<b>Public Speaking Skills</b> <ul style="list-style-type: none"><li>o Meaning and Importance of Public Speaking</li><li>o Components of Public Speaking: Illustration, Voice modulation, The Power of Pause, Visual Aids, Sense of humour, Articulation</li><li>o Principles of Effective Public Speaking: Principle of Preciseness, Principle of Clarity, Principle of Completeness, Principle of Consciousness, Principle of becoming Better Public Speaker</li></ul>
<b>Unit - 2</b>	<b>Communication Skills</b> <ul style="list-style-type: none"><li>o Concept Communication</li><li>o Types of Communication: Verbal and Non-Verbal</li><li>o Barriers of Communication</li><li>o Ways of Effective Communication</li><li>o Ways or means of motivating audience</li></ul>

➤ **b. Practical (1 Credits)**

Students shall prepare a write-up based on topic selected for speech.

**Recommended Readings:**

- Mangal, S. K. (2013). *Essentials of Educational Psychology*. Delhi: PHI Learning Private Limited.
- Manoharan P. K. (2008). *Education and Personality Development*. New Delhi: APH

➤ **b. Practical (1 Credits)**

Students shall prepare a write-up based on topic selected for speech.

**Recommended Readings:**

- Mangal, S. K. (2013). *Essentials of Educational Psychology*. Delhi: PHI Learning Private Limited.
- Manoharan, P. K. (2008). *Education and Personality Development*. New Delhi: APH Publishing Corporation.
- Morgan, Clifford T. (1993). *Introduction to Psychology*. New Delhi: Tata McGraw Hill Publishing Company Limited.
- Nikitina, Arina (2011). *Successful Public Speaking*. Arina Nikitina & bookboon.com



**Serial No-157**  
**Social Demography**  
**SEC0315703**  
**(By LOKD College)**

Semester – III  
Skill Enhancement Course  
Paper Code:- SEC-03002203  
Course Name:- Social Demography  
Department of Geography  
Internal – 20, Theory – 30 and Practical – 25  
Credit - 3 (Theory credit-2, Practical credit-1)

**Objectives:**

This paper is designed to provide an idea to the students about population dynamics and its impact on society and the socio cultural phenomena of some tribes in North East India. It will also enable the students to learn the techniques of demographic analysis.

**Out comes:** This paper helps the students to know the demographic concept (fertility, mortality, migration) and some important demographic theories of population growth. It also help the learner to know the culture of different tribe of North East India, age sex structure, literacy, rural urban composition, population growth and different population policy in India.

**Unit – 1 :** Introduction

- (a) Meaning and scope of social geography.
- (b) Key demographic concept.
  - \* Fertility
  - \* Mortality
  - \* Migration

**Unit – 2 :** Socio-cultural activities of 5 tribes in Assam.

- Bodo, Missing, Adivasi, Garo and Nepali (Food, Dress, Ornaments and Festivals)

**Unit – 3 :** Demographic Theories

- Malthusian theory of population
- Demographic transition theory

**Unit – 4 :** Composition of population in India

- Sex Ratio, Age structure and Literacy
- Rural urban composition.

**Unit – 1 :** Introduction

- (a) Meaning and scope of social geography.
- (b) Key demographic concept.
  - \* Fertility
  - \* Mortality
  - \* Migration

**Unit – 2 :** Socio-cultural activities of 5 tribes in Assam.

- Bodo, Missing, Adivasi, Garo and Nepali (Food, Dress, Ornaments and Festivals)

**Unit – 3 :** Demographic Theories

- Malthusian theory of population
- Demographic transition theory

**Unit – 4 :** Composition of population in India

- Sex Ratio, Age structure and Literacy
- Rural urban composition.

**Unit – 5 :** Population growth and policy in India

- Population growth in India
- Population policy in India.

**Unit – 6 :** Field study report.

**Reference:**

1. Social Geography – M. Taher.
2. Social Geography – Radakrishnan Dubey
3. India – D.R. Khallar
4. India – Dr. Y.I. Singh

Paper offered by  
Geography Department  
L.O.K.D. College, Dhekiajuli

**Serial No-158**  
**Managerial Economics**  
**SEC0315803**  
**(By Ratnapith College)**

This course aims to make students understand the basic concepts of economic theory and with application to managerial decision making. It is also emphasizes the knowledge on concept and theories of Ma economy.

<b>A. Details of the Course Eligibilities</b>			
I	Eligibilities	Candidates who have passed 10+2 Examination	
II	No. of Seats	50 Students	
III	Course fee	100	
IV	Duration of the Course	3 Months Course(January to June)	
V	Personal contact Programme	There will be personal contact programme consisting 30 classes	
VI	Attendance	Minimum 75 % need to attend the classes for appear in final examination . failing Secure minimum 75% percent attendance are not allowed to seat in the Examination	
VII	Examination Procedures	The examination shall consists of 30 MCG for 60 marks, 20 marks for essay questions and 15 marks for two short questions and 5 marks for attendances	
VIII	Medium of Examination	The examination will be conducted in both English and Assamese Medium	
IX	Award of Certificates	Each successful candidates in the final examination will be awarded a certificate	
<b>Grade Points</b>			
A Candidate will have to score C grade for Pass in the Examination. Grading System of successful candidates is shown below.			
<b>Ranges of marks in %</b>	<b>Letter Grades</b>	<b>Category</b>	<b>Grade Point</b>
100-90	O	Outstanding	10
80-89	A+	Very Good	9
70-79	A	Good	8
60-69	B	Above Average	7
50-59	B+	Average	6
40-49	C	Simple Pass	5
Below 40	F	Fail	

**Unit-I Managerial economics**

**1 Credits**

–Introduction, meaning , Nature and scope of managerial economics.,

**Unit-II Demand and supply analysis****3Credits**

Demand-law of demand, law of supply and its component, market demand and supply function. Market equilibrium, consumer utilities and indifference curve.

**Unit-III National Income and Business cycle****3Credits**

Meaning and concept of National income, Importance Circle flow of national incomes ,difficulties . business cycle –types of bussines cycle ,characteristics of business cycle, causes and its phases of business cycle.

## Reference

1. M.D Mithani 2017 “Managerial Economics Technique and its application” ,Delhi publishing house
2. D.N Dwivedi (2006) “Managerial Economics “Vikash publishing house
3. Gitan Prasad and P.D Chandra (2008) Managerial Economics” Tata mcgraw Hills

**Serial No-159**  
**Data Processing and Analysis**  
**SEC0315903**  
**(By Darang College)**

**I. Course Objective:**

- a) The basic objectives of the course are
- i) To introduce essential primary components in computer.
  - ii) To introduce the idea about some basic operating systems.
  - iii) To introduce the methods of scientific graphing and data analysis.
- b) The course will consist of hands-on training on the data processing and analysis.

**II. Learning outcome:**

On successful completion of the course, students will be able to understand the basics of computer systems and gain an insight into the different types of operating systems. They will be able to sample and analysis a given data set and derive different parameters using different data processing methods. The hands on sessions will help them in their future research fields.

**Total Credit: 03      Theory Credit: 01 (One)      Practical Credit: 02 (Two)**

**No. of Required Classes: 15 hours (Theory) + 30 hours (Practical)**

**Detailed Syllabus allotted number of classes**

<b>Unit no.</b>	<b>Unit Content</b>	<b>No. of classes</b>	<b>Marks/ Credit</b>
Unit I: Computer Basics	Computer Basics: Components Of Computer system, Central Processing Unit, Concept of Hardware: Input devices, Output devices, Computer Memory, Processing concept of Computer	03	01
Unit II: Operating System	Windows 11 and working On Windows 11 environment, Introduction to Linux	03	
Unit III: Scientific graphing and data analysis	Creating chart in Microsoft excel, Types of chart- Column chart, line chart, Pie chart, Doughnut chart, bar chart, area chart, scatter chart, surface chart; Chart elements-Chartstyle, Chart filter, fine tune of chart; Chart Design tools, Design and format.  The Origin Workspace, Managing Data and	09	

	Importing Data from different sources, Basic Data Manipulation, Processing of Imported Data, Creating and Customizing Graphs, Creating and Customizing Multi-layer Graphs, Data Exploration and Pre-selection, Advanced Nonlinear Fitting, including Creating Custom Fitting Functions.		
--	---	--	--

### **Hands on Practicals**

1. Construct a 3D pie chart, 2D Column Chart and stacked Column chart from a given work sheet.
2. From a set of data go for Regression analysis.
3. Using Origin create your own multi-axes or multi-layer graphs and save as template for repeated use.
4. Fit a histogram with a Gaussian distribution in Origin Software.
5. Use Linear curve fitting function in Origin Software.
6. Use Non-linear curve fitting in Origin Software.
7. Identify slow, average and advance learner students using Quartile function in Microsoft Excel.
8. Sort and filter a data set using Microsoft Excel.
9. Find mean, median, mode and standard deviation of a given data set using formula in Microsoft Excel.

**Serial No-169**  
**Baresahariya Bhaona**  
**SEC0316903**  
**(By THB College)**

**দক্ষতা বিকাশ পাঠ, অসমীয়া**  
**Skill Enhancement Course (SEC)**

বাৰেচহৰীয়া ভাওনা  
তৃতীয় যাদ্ৰাসিক, ২০২৪-২৫  
(ক্রেডিট - ৩ : মুঠ নম্বৰ- ৭৫)

Find text or tools

নম্বৰ বিভাজন :

১। যাদ্ৰাসিক পৰীক্ষা :	মুঠ নম্বৰ- ৩০
২। আভ্যন্তৰীণ পৰীক্ষা (Sessional) :	মুঠ নম্বৰ- ২০
৩। প্ৰেক্টিকেল/ক্ষেত্ৰ অধ্যয়ন :	মুঠ নম্বৰ- ২৫
— পাঠ্য অধ্যয়ন :	০২ ক্রেডিট
— প্ৰেক্টিকেল/ক্ষেত্ৰ অধ্যয়ন :	০১ ক্রেডিট
— প্ৰয়োজনীয় শ্ৰেণী :	৩০ ঘণ্টা পাঠ অধ্যয়ন + ৩০ ঘণ্টা প্ৰেক্টিকেল/ক্ষেত্ৰ অধ্যয়ন
— পাঠ্যক্রম প্ৰস্তুতি :	তাগবীৰ হেমবৰুৱা মহাবিদ্যালয় জামুগুৰিহাট, শোণিতপুৰ (অসম)

Activate V  
Go to Setting

পাঠ্যক্রম প্ৰস্তুতি :

এই পাঠ্যক্রমৰ দ্বাৰা ছাত্ৰ-ছাত্ৰীসকলে অংকীয়া ভাওনা, বিশেষকৈ মহাপুৰুষীয়া ভাওনা  
তাগবীৰ হেমবৰুৱা মহাবিদ্যালয়  
জামুগুৰিহাট, শোণিতপুৰ (অসম)

Find text or tools

পাঠ্যক্রমৰ উদ্দেশ্য :

এই পাঠ্যক্রমৰ দ্বাৰা ছাত্ৰ-ছাত্ৰীসকলে অংকীয়া ভাওনা, বিশেষকৈ মহাপুৰুষীয়া ভাওনা  
সম্পৰ্কে অধ্যয়ন কৰিব পাৰিব। অংকীয়া নাট আৰু মহাপুৰুষীয়া নাটৰ পাৰ্থক্য সম্পৰ্কে  
বিশেষভাৱে জ্ঞান লাভ কৰাৰ লগতে বাৰেচহৰীয়া আৰু হাজৰী ভাওনাৰ স্বকীয় বিশেষত্ব  
সম্পৰ্কে জ্ঞান লাভ কৰিব পাৰিব।

পাঠ্যক্রমৰ দ্বাৰা আহত জ্ঞান :

— এই অধ্যয়নৰ মাজেদি ছাত্ৰ-ছাত্ৰীসকলে অসমৰ বিভিন্ন অঞ্চলত প্ৰচলিত অংকীয়া নাট  
আৰু মহাপুৰুষীয়া নাটৰ পাৰ্থক্য বুজিব পাৰিব।  
— অসমৰ ভিন্ন অঞ্চলত প্ৰচলিত অংকীয়া নাট, মহাপুৰুষীয়া নাটসমূহৰ পৰিবেশন পদ্ধতি  
আৰু সামগ্ৰিক ব্যৱস্থাপনা সম্পৰ্কে অৱগত হ'ব পাৰিব।  
— শোণিতপুৰ আৰু নগাঁও অঞ্চলৰ বাহিৰে অসমৰ অন্য অঞ্চলত কেনেদৰে অংকীয়া  
নাট মাতৃভাষাত পৰিবেশন কৰা হয় সেই বিষয়ে জ্ঞান লাভ কৰিব।  
— উল্লেখিত জিলা দুখনত অংকীয়া আৰু মহাপুৰুষীয়া নাটৰ পৰিবেশন, পৰিচালনা, মঞ্চ  
নিৰ্মাণ আদিৰ মৌলিকতা অধ্যয়নৰ বাবে ক্ষেত্ৰভিত্তিক অধ্যয়নৰে জ্ঞান লাভ কৰিব পাৰিব।

Activate Windows  
Go to Settings to activate

অধ্যয়নৰ বিভাগ	পাঠ্য ঘণ্টা	মুঠ নম্বৰ- ৫০
----------------	-------------	---------------

অধ্যয়ৰ বিভাগ	পাঠ্য ঘণ্টা	মুঠ নম্বৰ- ৫০
<p>প্ৰথম গোট :</p> <ul style="list-style-type: none"> <li>— অংকীয়া নাটৰ ঐতিহ্য আৰু পৰম্পৰা।</li> <li>— অংকীয়া ভাওনাৰ নাট আৰু মহাপুৰুষীয়া নাটৰ অধ্যয়ন আৰু পাৰ্থক্য।</li> <li>— অংকীয়া নাট /মহাপুৰুষীয়া নাট আৰু মাতৃভাষাৰ নাটৰ পাৰ্থক্য।</li> </ul>	৯ ঘণ্টা	১৫

<p>দ্বিতীয় গোট :</p> <ul style="list-style-type: none"> <li>— বাৰেচহৰীয়া আৰু হাজৰী ভাওনাৰ ইতিহাস অধ্যয়ন</li> <li>— বাৰেচহৰীয়া আৰু হাজৰী ভাওনা পৰিবেশন শৈলীৰ বৈশিষ্ট্য আৰু আঞ্চলিক প্ৰভাৱ।</li> <li>— বাৰেচহৰীয়া আৰু হাজৰী ভাওনাত প্ৰদৰ্শিত নাটসমূহৰ ইতিহাস আৰু ইয়াৰ উপস্থাপনৰ বিশেষত্ব।</li> </ul>	৯ ঘণ্টা	১৫
<p>তৃতীয় গোট :</p> <ul style="list-style-type: none"> <li>— বাৰেচহৰীয়া ভাওনা আৰু হাজৰী ভাওনাৰ মঞ্চ নিৰ্মাণৰ কলা-কৌশল।</li> <li>— ভাওনাকেন্দ্ৰিক সামূহিক প্ৰস্তুতি আৰু সামাজিক- সংস্কৃতিৰ স্বৰূপ।</li> <li>— অংশগ্ৰহণকাৰী দলসমূহৰ ভাষিক, ধাৰ্মিক বৈচিত্ৰ্য আৰু জাতীয় সম্পদ ৰক্ষাত তেওঁলোকৰ অৱদান।</li> </ul>	৯ ঘণ্টা	২০
<p>চতুৰ্থ গোট : ক্ষেত্ৰ অধ্যয়ন : অৱদান।</p>		

<p>চতুৰ্থ গোট : ক্ষেত্ৰ অধ্যয়ন :</p> <ul style="list-style-type: none"> <li>— শিক্ষাৰ্থীসকলে বাৰেচহৰীয়া ভাওনা আৰু হাজৰী ভাওনা সম্পৰ্কে নিৰ্দিষ্ট অঞ্চলৰ পৰা সমল সংগ্ৰহ কৰিব।</li> <li>— বাৰেচহৰীয়া /হাজৰী ভাওনাকেন্দ্ৰিক সাংস্কৃতিক অধ্যয়ন কেন্দ্ৰসমূহ প্ৰত্যক্ষ পৰিদৰ্শনেৰে ইয়াৰ ইতিহাস সম্পৰ্কে জ্ঞান লাভ কৰিব।</li> <li>— ভাওনাৰ লগত জড়িত পোছাক-পৰিচ্ছদ/ মঞ্চ নিৰ্মাণ শৈলীত প্ৰয়োজন হোৱা ধলুৱা সামগ্ৰী/ ধলুৱা বিশেষত্ব সম্পৰ্কে অধ্যয়ন কৰিব পাৰিব।</li> <li>— সামগ্ৰিকভাৱে নাট/ অভিনয় কৌশল/ মঞ্চ নিৰ্মাণ/ স্থানীয় বিশেষত্ব/ সামাজিক-সংস্কৃতি সম্পৰ্কে প্ৰকল্প প্ৰস্তুত কৰিব পাৰিব।</li> </ul>	৯ ঘণ্টা	১৫
--	---------	----

পঠন সামগ্ৰী :

পঠন সামগ্ৰী :

অংকাৱলী : কালিবাম মেধি

অংকমালা : সত্যেন্দ্ৰ নাথ শৰ্মা

মঞ্চলেখা : অতুল চন্দ্ৰ হাজৰিকা

বাৰেচহৰীয়া ভাওনা : গজেন বৰুৱা

ঐতিহ্যমণ্ডিত কলিয়াবৰ : লীলাধৰ বৰা

বাৰেচহৰীয়া ভাওনাৰ স্মৃতিগ্ৰন্থসমূহ

অসম সাহিত্য সভাৰ ৭৩ সংখ্যক কলিয়াবৰ অধিবেশনৰ স্মৃতিগ্ৰন্থ

কলিয়াবৰৰ হাজাৰী ভাওনাৰ স্মৃতিগ্ৰন্থসমূহ।

---



## Serial No-173

### Writing Biodata And Facing An Interview

SEC0317303

(By Udali College)

#### Distribution of marks:

1. End semester examination, Total marks—30
2. Sessional Examination, Total marks—20
3. Practical, Total marks--25

**Course Outcome:** After completing this course, students will be able to write a bio-data scientifically and will develop

confidence to face different types of interview .

#### **A)Theory (2 Credits) Units Contents**

##### **Unit-1 Bio-data**

- Meaning, Purpose and Types of Bio-data
- Components of Bio-data .
- Bio-data: Do's and Do not's
- Meaning of Resume and Curriculum Vitae
- Differences among Bio-data, Resume and Curriculum Vitae
- How to write a Good Academic Bio-data

##### **Unit-2 Interview**

- Meaning and objectives of Interview
- Different types of Interview: Structured interview, Unstructured interview, Job-related interview
- Characteristics of good interview
- Importance of interview
- Skills of facing interview

#### **B) Practical (1 credits): Students shall write a bio-data to face interview.**

Guidelines: • The teachers will have to guide the students in writing their Bio-data, if necessary outside

experts may also be invited to train the students in writing the Bio-data.

- Teachers will explain the style and skill of appearing a formal interview.
- Students will practice mock interview within the classroom.

- For theory part, written examination will be conducted.  
(End semester exam for 30 marks and sessional exam for 20 marks)
- For Practical part, evaluation (Submission of Prepared Bio-data+ Facing an Interview) will be done by an External Examiner.

Recommended Readings:

- Innes, James (2009). The CV Book-Your Definite Guide to Writing the Perfect CV. Prentice Hall.
- Kothari, C. R. (2004). Research Methodology: Methods and Techniques. New Age International.
- Sidhu, Kulbir Singh (1984). Methodology of Research in Education. New Delhi: Sterling Publisher's Private Limited

**Serial No-174**  
**Academic Writing**  
**SEC0317403**  
**(By ASBC College)**

Subject: English SEC, B.A. 3<sup>rd</sup> Sem, FYUGP  
Course Name: ACADEMIC WRITING

**Objectives:** This course is designed to -

- Ease the students into the domain of writing that measures up to academic standards.
- Introduce the central ideas and forms of academic writing, and guide the through them in an orderly way.
- Facilitate and encourage methodical thinking and analyzing. Such processes would then enable the students to work on and improve the quality of their writing.

**COURSE LEVEL:** 100-199 (FOUNDATION AND INTRODUCTORY) COURSE  
**OUTCOMES (GRADUATE ATTRIBUTES):**  
Upon the end of this course, students should be able to:

- Understand the features of professional and academic writing.
- Enhance vocabulary, communicative and writing skills.
- Write grammatically cohesive and articulate sentences in their own words.
- Engage in Critical thinking and brainstorming ideas.
- Form cogent arguments and compose analytical drafts.
- Review their essays to maintain academic integrity and avoid plagiarism.

**TOTAL CREDITS:** 3  
**Full Marks:** 75

**COURSE CONTENT:**

<b>UNIT I: Introduction to the Writing Process</b>	<b>25 Marks</b>
<ul style="list-style-type: none"><li>• Basics and Conventions of Academic Writing</li><li>• Reading and Developing Ideas</li><li>• Understanding Paragraph Formats</li><li>• Annotating</li><li>• Note-making</li></ul>	
<b>UNIT II: Organizing Paragraphs and Research Work</b>	<b>25 Marks</b>
<ul style="list-style-type: none"><li>• Summarizing</li><li>• Paraphrasing</li><li>• outlining Essays</li><li>• Planning and Structuring Arguments</li></ul>	

<ul style="list-style-type: none"><li>• outlining Essays</li><li>• Planning and Structuring Arguments</li><li>• Introductions and Conclusions</li></ul>	
<b>UNIT III: Critical Analysis and Finalizing Drafts</b>	<b>25 Marks</b>
<ul style="list-style-type: none"><li>• Citing quotations and Referencing</li><li>• Checking for Plagiarism</li><li>• Revision and Re-writing</li><li>• Final Editing</li><li>• Proofreading</li></ul>	

*NARHANA* Principal  
ASBC Chertsey College  
Ghazipur, West Bengal

ENG-SEC

**REFERENCE BOOKS & MATERIALS:**  
Bailey, Stephen. Academic Writing: A Practical Guide for Students. Routledge Falmer, 2004.  
Booth, Wayne C., et al. The Craft of Research. The University of Chicago Press, 2016.  
Day, Trevor. Success in Academic Writing. Palgrave Macmillan, 2013.  
Sivia, Paul J. How to Write a Lot: A Practical Guide to Productive Academic Writing. American Psychological Association, 2007.  
Zemach, Dorothy E., and Lisa A. Rumisek. Academic Writing: From Paragraph to Essay. Macmillan, 2005

\*\*\*\*\*

**Serial No-175**  
**ICT Hardware**  
**SEC0317503**  
**(By Rupahi College)**

SEMESTER-III  
(ICT HARDWARE)  
SEC0305403  
CREDIT: 3(2+1)  
Theory Lectures: 30 Hours  
Practical: 15 (30 Hours)

Evaluation Pattern: (Internal Evaluation,  
External Evaluation: Theory: 30, Practical: 25)

**UNIT-I**

Functional Unit of Computer, CPU, Concept of Technology, Logic and Flow Chart; Networks, Example Programming Languages C,C++, Visual Basic.

**UNIT-II**

Concept of Digital Technology: Number Systems (Octal, Hexadecimal) Digital Information Representation, Transmission, Codes including UNICODE, Logic Charts, concept of algorithm.

**UNIT-III**

Computer Networks, LAN, WiFi and internetworks. Physical Media, Network Devices. Chat and Conference over internet. Programming concepts, Programming languages.

Concept of Digital Technology: Number System (Octal, Hexadecimal) Digital Information Representation, Transmission, Codes including UNICODE, Logic Charts, concept of algorithm.

**UNIT-III**

Computer Networks, LAN, WiFi and internetworks. Physical Media, Network Devices. Chat and Conference over internet. Programming concepts, Programming languages.

**Practical:**

1. Programming in C language: Basic Algebraic Operations
2. Programming in Visual Basic. Create Simple forms
3. ICT Tools:

**Serial No-176**  
**Learning English As A Second Language**  
**SEC0317603**  
**(By Dhing College)**

**DEPARTMENT OF ENGLISH**  
**DHING COLLEGE**

Syllabus for 3<sup>rd</sup> Sem (FYUGP) Skill Enhancement Course (SEC)  
Sub: English  
Course Title: Learning English As A second Language  
Credits: 3 (Theory-2+Practical- 1)  
Total Marks: 75 (Theory: 50+ Practical: 25)  
No. of required classes: 30 hrs (Theory) + 30 hrs (Practical)  
Designed by Department of English, Dhing College



**Learning Objectives:-**

This course introduces students to some of the basic issues of learning English as a second language. There will be 4 (four) units comprising the nature of language, basic language skills, grammar and assessment.

**Learning Outcomes:-**

The students will learn how to acquire a language, and make distinction among the first language, second language and foreign language. They will learn the issues of listening and speaking, reading and writing as basic language skills. They will have a key concept of English grammar and usage.

**Unit-I:-** The nature of language?

- What is language? First and Second language; foreign language, language as a means of communication, language rich classroom and its importance. 6 Hrs

**Unit – II:-** Basic Language Skills.

- Developing language skills, sound system of English, suprasegmental features, using dictionary for correct pronunciation, organizing listening and speaking activities, reading with comprehension

**Unit – II:-** Basic Language Skills.

- Developing language skills, sound system of English, suprasegmental features, using dictionary for correct pronunciation, organizing listening and speaking activities, reading with comprehension different types of text, reading for global and local comprehension. Scaffolding concepts and activities, mechanics of writing, control writing, free and creative writing, letter writing, messages and notices. 16 Hrs

**Unit – III:-** Grammar.

- Parts of speech, phrases and clauses, kinds of sentences, subject verb agreement, verbs, connectors, finite and non-finite verbs, voice, narration. 8 Hrs

**Unit – IV:-** Assessment and Evaluation. (Practical)

- Assessment and evaluation goals, continuous and comprehensive evaluation, assessing listening and speaking skills, assessing reading and writing skills, assessing skills in grammar. 30 Hrs

**Suggested Readings:**

1. English as a Second Language, C.U.P, Peter Lucantoni & Lydia Kellas
2. English Language Teaching, 3<sup>rd</sup> Edition, Geetha Nagaraj.
3. How to Teach English?, Madan Mohan Sharma.
4. A Text Book on English Grammar, P. K. Dey Sarkar.

\*\*\*\*\*

*[Handwritten Signature]*  
HOD, English

2/2/24

**Serial No-177**  
**Thematic Cartography**  
**SEC0317703**  
**(By Dhing College)**

*2.02/20/08/17*  
*HOD*  
*Dept. of Geography*  
*Dhing College*

Department of Geography, Dhing College

Syllabus of Skill Enhancement Paper

Course Name: Thematic Cartography

Paper Code: SEC

Total Credit: 3 (2+1)

Total Marks: 75

(Theory: 30 marks, Practical: 25 marks, Sessional Examination: 20 marks)

**Course Objectives:**

This course on thematic cartography provides a general understanding of methods and techniques and importance in geographic study. It more particularly focuses on various themes of cartographic techniques; principles of different types of symbols, methods for preparation of maps or plan in different environment and representation of various features of the earth's surface using different cartographic techniques.

**Course outcomes:**

- Understanding the importance of various techniques of preparation of maps in geographical study
- General understanding of preparation of different types of plan and maps.
- An acquaintance of different cartographic techniques for representation of various facets of earth's surface.

**Part I: Theory**

Credit: 2 (30 Marks)

(30 classes of 1 hour duration each)

1. Thematic cartography: meaning and importance. (4 classes)

- General understanding of preparation of different types of plan and maps.
- An acquaintance of different cartographic techniques for representation of various facets of earth's surface.

**Part I: Theory**

Credit: 2 (30 Marks)

(30 classes of 1 hour duration each)

1. Thematic cartography: meaning and importance. (4 classes)
2. Thematic Mapping: Principles and techniques of representation of physical and human geographic data (point, line, polygon). (6 classes)
3. Concepts and principles of cartographic overlay and mapping. (6 classes)
4. Concept of base map: Types of thematic map; map reading; map design, layout and typography. (7 classes)
5. Techniques of interpretation of Topographical maps, satellite imageries and aerial photographs for thematic mapping. (7 classes)



**Part II: Practical**

Credit: 1 (20 Marks)

(15 classes of 2-hour duration each)

Practical Works (21 Marks), Practical Note-Book and Viva-voce (2+2 marks)

(To attempt 3 questions in total carrying 7 marks each and practical book and viva-voce carrying 4 marks)

- 1: Preparation of an administrative/physical map of India containing necessary map elements using appropriate typography.
2. Preparation of thematic maps for representing human geographic data using choropleth, isopleth, dot, sphere and proportionate circle techniques.
3. Interpretation of topographical maps for preparation of thematic maps through overlay method (taking point, line and area layers) to show relationship between relief and agriculture; and relief, drainage and settlements.
4. Locational accessibility mapping based on travel time through isochronic cartogram.

**Reading List:**

1. Anson R. and Ormelling F. J., 1994: International Cartographic Association: Basic Cartographic Vol., Pergaman Press.
2. Gupta K.K. and Tyagi, V.C.,1992: Working with Map, Survey of India, DST, New Delhi.
3. Misra R.P. and Ramesh, A.,1989: Fundamentals of Cartography, Concept, New Delhi.
4. Monkhouse F.J. and Wilkinson H.R.,1973: Maps and Diagrams, Methuen, London.
5. Rhind D. W. and Taylor D. R. F., (eds.), 1989: Cartography: Past, Present and Future, Elsevier, International Cartographic Association.
6. Robinson A.H.,2009: Elements of Cartography, John Wiley and Sons, New York.

4. Locational accessibility mapping based on travel time through isochronic cartogram.

**Reading List:**

1. Anson R. and Ormelling F. J., 1994: International Cartographic Association: Basic Cartographic Vol., Pergaman Press.
2. Gupta K.K. and Tyagi, V.C.,1992: Working with Map, Survey of India, DST, New Delhi.
3. Misra R.P. and Ramesh, A.,1989: Fundamentals of Cartography, Concept, New Delhi.
4. Monkhouse F.J. and Wilkinson H.R.,1973: Maps and Diagrams, Methuen, London.
5. Rhind D. W. and Taylor D. R. F., (eds.), 1989: Cartography: Past, Present and Future, Elsevier, International Cartographic Association.
6. Robinson A.H.,2009: Elements of Cartography, John Wiley and Sons, New York.
7. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers.
8. Sarkar, A. (2015) Practical Geography: A Systematic Approach. Orient Black Swan Private Ltd., New Delhi
9. Singh, L.R., 2013: Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
10. Talukder, S.,2008: Introduction to Map Projections, EBH Publishers (India), Guwahati.

Serial No-178

Mahapurusiya Nat aru Baresohoria/Hajari Bhaona

SEC0317803

(By THB College)

দক্ষতা বিকাশ পাঠ, অসমীয়া  
Skill Enhancement Course (SEC)  
মহাপুৰুষীয়া নাট আৰু বাৰেচহৰীয়া/হাজাৰী ভাওনা  
তৃতীয় বাৰ্ষিক, ২০২৪-২৫  
(ক্রেডিট - ৩ : মুঠ নম্বৰ- ৭৫)

নম্বৰ বিভাজন :

১। বাৰ্ষিক পৰীক্ষা :	মুঠ নম্বৰ- ৩০
২। আভ্যন্তৰীণ পৰীক্ষা (Sessional) :	মুঠ নম্বৰ- ২০
৩। প্ৰেক্টিকেল/ক্ষেত্ৰ অধ্যয়ন :	মুঠ নম্বৰ- ২৫
— পাঠ্য অধ্যয়ন :	০২ ক্রেডিট
— প্ৰেক্টিকেল/ক্ষেত্ৰ অধ্যয়ন :	০১ ক্রেডিট
— প্ৰয়োজনীয় শ্ৰেণী :	৩০ ঘণ্টা পাঠ অধ্যয়ন + ৩০ ঘণ্টা প্ৰেক্টিকেল/ অসমীয়া বিভাগ, ত্যাগবীৰ হেমবৰুৱা মহাবিদ্যা জামুগুৰিহাট, শোণিতপুৰ (অসম)
— পাঠ্যক্রম প্ৰস্তুতি :	

পাঠ্যক্রমৰ উদ্দেশ্য :

এই পাঠ্যক্রমৰ দ্বাৰা ছাত্ৰ-ছাত্ৰীসকলে অংকীয়া ভাওনা, বিশেষ  
সম্পৰ্কে অধ্যয়ন কৰিব পাৰিব। অংকীয়া নাট আৰু মহাপুৰুষী  
বিশেষভাৱে জ্ঞান লাভ কৰাৰ লগতে বাৰেচহৰীয়া আৰু হাজাৰী  
সম্পৰ্কে জ্ঞান লাভ কৰিব পাৰিব।



আৰু সামগ্ৰিক ব্যৱস্থাপনা সম্পৰ্কে অবগত হ'ব পাৰিব।  
 — শোণিতপুৰ আৰু নগাঁও অঞ্চলৰ বাহিৰে অসমৰ অন্য আ  
 নাট মাতৃভাষাত পৰিবেশন কৰা হয় সেই বিষয়ে জ্ঞান লাভ ক  
 — উল্লেখিত জিলা দুখনত অংকীয়া আৰু মহাপুৰুষীয়া নাটৰ ‘  
 নিৰ্মাণ আদিৰ মৌলিকতা অধ্যয়নৰ বাবে ক্ষেত্ৰভিত্তিক অধ্যয়নে

অধ্যয়ৰ বিভাগ	পাঠ্য ঘণ্টা
প্রথম গোট ৪ — অংকীয়া নাটৰ ঐতিহ্য আৰু পৰম্পৰা। — অংকীয়া ভাওনাৰ নাট আৰু মহাপুৰুষীয়া নাটৰ অধ্যয়ন আৰু পাঠ্যক। — অংকীয়া নাট / মহাপুৰুষীয়া নাট আৰু মাতৃভাষাৰ নাটৰ পাঠ্যক।	৯ ঘণ্টা

নাটসমূহৰ ইতিহাস আৰু ইয়াৰ উপস্থাপনৰ  
 বিশেষত্ব।

তৃতীয় গোট ৪ — বাৰেচহৰীয়া ভাওনা আৰু হাজাৰী ভাওনাৰ মঞ্চ নিৰ্মাণৰ কলা-কৌশল। — ভাওনাকেন্দ্ৰিক সামূহিক প্ৰস্তুতি আৰু সামাজিক- সংস্কৃতিৰ স্বৰূপ। — অংশগ্ৰহণকাৰী দলসমূহৰ ভাষিক, ধাৰ্মিক বৈচিত্ৰ্য আৰু জাতীয় সম্পদ বক্ষাত তেওঁলোকৰ অৱদান।	৯ ঘণ্টা
চতুৰ্থ গোট ৪ ক্ষেত্ৰ অধ্যয়ন ৪ — শিক্ষাৰ্থীসকলে বাৰেচহৰীয়া ভাওনা আৰু হাজাৰী ভাওনা সম্পৰ্কে নিৰ্দিষ্ট অঞ্চলৰ পৰা সমল সংগ্ৰহ কৰিব। — বাৰেচহৰীয়া / হাজাৰী ভাওনাকেন্দ্ৰিক সাংস্কৃতিক অধ্যয়ন কেন্দ্ৰসমূহ প্ৰত্যক্ষ পৰিদৰ্শনৰে ইয়াৰ ইতিহাস সম্পৰ্কে জ্ঞান লাভ কৰিব। — ভাওনাৰ লগত জড়িত পোছাক-পৰিচ্ছদ/ মঞ্চ নিৰ্মাণ শৈলীত প্ৰয়োজন হোৱা থলুৱা সামগ্ৰী/ থলুৱা বিশেষত্ব সম্পৰ্কে অধ্যয়ন কৰিব পাৰিব। — সামগ্ৰিকভাৱে নাট/ অভিনয় কৌশল/ মঞ্চ নিৰ্মাণ/ স্থানীয় বিশেষত্ব/ সামাজিক-সংস্কৃতি	৯ ঘণ্টা

চতুৰ্থ গোট ৪ ক্ষেত্ৰ অধ্যয়ন ৪

- শিক্ষাৰ্থীসকলে বাৰেচহৰীয়া ভাওনা আৰু হাজাৰী ভাওনা সম্পৰ্কে নিৰ্দিষ্ট অঞ্চলৰ পৰা সমল সংগ্ৰহ কৰিব।
- বাৰেচহৰীয়া / হাজাৰী ভাওনাকেন্দ্ৰিক সাংস্কৃতিক অধ্যয়ন কেন্দ্ৰসমূহ প্ৰত্যক্ষ পৰিদৰ্শনৰে ইয়াৰ ইতিহাস সম্পৰ্কে জ্ঞান লাভ কৰিব।
- ভাওনাৰ লগত জড়িত পোছাক-পৰিচ্ছদ/ মঞ্চ নিৰ্মাণ শৈলীত প্ৰয়োজন হোৱা থলুৱা সামগ্ৰী/ থলুৱা বিশেষত্ব সম্পৰ্কে অধ্যয়ন কৰিব পাৰিব।
- সামগ্ৰিকভাৱে নাট/ অভিনয় কৌশল/ মঞ্চ নিৰ্মাণ/ স্থানীয় বিশেষত্ব/ সামাজিক-সংস্কৃতি সম্পৰ্কে প্ৰকল্প প্ৰস্তুত কৰিব পাৰিব।

৯ ঘণ্টা

পঠন সামগ্ৰী ৪

অংকাৱলী ৪ কালিৰাম মেধি

অংকমালা ৪ সত্যেন্দ্ৰ নাথ শৰ্মা

মঞ্চলেখা ৪ অতুল চন্দ্ৰ হাজৰিকা

বাৰেচহৰীয়া ভাওনা ৪ গজেন বৰুৱা

**Serial No-179**

**Tradition of Oral History and Culture in Western Assam**

**SEC0317903**

**(By Chilarai College)**

**Introduction to the Course:** Oral history and oral culture play an influential role in the decolonizing drives of various ethnic communities for recovery and survival of their traditional knowledge systems globally. Tribes and communities in every nook and corner of the world make continuous efforts to access their pasts for addressing existential angst of the present. Here lies the significance of the study of oral history and culture of those people who have been under the illusion that they are ahistorical people. It is undeniable that mainstream historical narratives are always available from select social groups. There is also an assumption that traditional historical writings are the academic exercises of the elite class of people and this is closely allied with power dynamics. Oral history traces the blind spots in mainstream historical narratives and it serves as an alternative method to challenge veracity of historical truths. Of course, it seems that when oral narratives are retold to explore truths, this becomes another hegemonic exercise. Despite that we cannot ignore the significance of oral history and culture of diverse communities that are available to us through diverse forms like folklore, myth, songs, stories, proverbs etc. This course explores the rich tapestry of oral traditions and histories that constitute a part of indigenous knowledge system of diverse communities of Western Assam. As there is a growing threat of the onslaughts of various global forces that are supposed to gallop the legacy of oral history and culture of people in this region. Students will be provided an exposure to practical methodologies for collecting, preserving, and interpreting historical information through recorded interviews honing their skills as historians and researchers. Moreover, Students shall also be oriented towards different types of mnemonic devices that direct them to explore the reservoir of historical knowledge. The course outcome is expected to orient the students with a sound theoretical foundation as well as hands-on experience towards understanding and documenting hitherto unexplored smaller oral narratives of diverse ethnic communities of the region.

**Course Objectives:**

1. To understand concepts of oral history and oral culture specific to various ethnic communities of Western Assam.

2. To apply Oral History as a tool for analysis
3. Fundamentals of Documentation of and Preservation for oral histories.
4. To explore the differences between history and memory.
5. Students will be engaged in exploration of oral history specific to their own communities.
6. Group Project Work for understanding oral history and culture of other communities.
7. To learn and apply different types of interview methods

**Course Outcomes:** Students will be able to understand the colorful cultural traditions of ethnic communities whose history is largely oral. Students will learn one another's oral history and to understand and respect one another's cultural traditions for developing a cross-cultural understanding.

## **5. Course Contents ( Unit wise with a unit title:**

### **Unit I. Understanding the Concept**

- (a) Orality, Oral Tradition, and Oral Culture.
- (b) History and Memory
- (c) Mnemonic devices

### **Unit III. Methodologies of Oral History**

- (a) Oral History as a tool in historical research
- (b) Collection, preservation, and interpretation of historical information through recorded interviews of individuals, communities, and participants in historical events.
- (c) Documentation and Archiving: Written, Audio, and Visual.

### **Unit II. Analysis of Oral History in Context**

Historical Events, Narratives of unsung heroes in India's Freedom Struggle, Commemorative Days, Biographies, Autobiographies and Memoirs, Traumatic experiences of displacements of communities, archival records, Statues and monuments of community leaders.

### **Unit IV. Tradition of Oral Culture**

- (a) Oral Traditions: Customs, Beliefs, Practices, and Worldviews of ethnic communities

***Recommended Books/References:***

1. Butalia, Urvashi, *The Other Side of Silence: Voices from the Partition of India*, Penguin, 2017.
2. Das, Veena (ed.), *Mirrors of Violence: Communities, Riots & Survivors in South Asia*, Delhi, OUP, 1990.
3. Foley, John Miles, *Oral Formulaic Theory: An Introduction & Annotated Bibliography*, New York & London: Garland, 1985.
4. Humphries (editor), *The Handbook of Oral History*.
5. Prasad, M. Mahadeva, *Ideology of the Hindi Film: A Historical Construction*, Delhi, OUP, 1998.
6. Perks, Robert and Thomson, Alistair (eds.), *Oral History Reader*, Routledge, 1998.
7. Ritchie, Donald A., *Doing Oral History: A Practical Guide*, OUP, New York, 2003.
8. Roberts, H. (editor), *Doing Feminist Research*, Routledge&Kegan Paul, London, 1981.
9. Thompson, Paul R., *Voice of the Past: Oral History*, OUP, Great Britain, 1978.
10. Valérie Raleigh Yow, *Recording Oral History*, Altamira Press, USA, 2005.
11. Vansina, Jan, *Oral Tradition: A Study in Historical Methodology* (Translated from the French by H. M. Wright), London: Routledge &Kegan Paul. 1965.
12. Vansina, Jan, *Oral Tradition as History*, Madison: University of Wisconsin Press. 1985.

**7. Paper Offered by: Chilarai College, Golakganj**

**Designed by:**

1. **Sandeep Kumar Thakur**, Assistant Professor, Department of History, Chilarai College
2. **Krishna Bhowmik**, HoD, & Assistant Professor, Department of History, Chilarai College
3. Dr Arup Sarma, Assistant Professor, Department of English, Chilarai College.

Serial No 180

SEC0318003

**Communication Skill in Persian**

**Credit: 3 Credits (Marks: 75)**

Distribution of Marks:

1. End Semester Examination : Total Marks: 30
2. Sessional Examination: Total Marks: 20
3. Practical: Total marks: 25

- Theory Credit: 02
- Practical Credit: 01
- No. of Required Class: 30 hours (Theory) + 30 hours (Practical)

**Course Outcome:**

1. Recognize the components of sentence structure and techniques for oral expression and elocution in Persian.
2. Apply oral expression and elocution techniques to improve speaking skills in Persian.
3. Outline the effectiveness of different sentence structures and compositions in conveying meaning.
4. Summarize the quality and coherence of written compositions in Persian based on established criteria.
5. Combine different writing techniques to craft persuasive arguments and narratives.

**Theory:**

<b>Unit –I</b> a. Persian Terminologies b. Advance Persian Grammar c. Simple Sentence making	<b><u>Hours: 15</u></b>	<b><u>Marks: 15</u></b>
<b>Unit-II</b> a. Composition b. Translation from English to Persian & vice –versa c. Political Translation	<b><u>Hours: 15</u></b>	<b><u>Marks: 15</u></b>

d. Historical Translation		
---------------------------	--	--

**Practical:**

<b><u>Unit-III</u></b>	<b><u>Hours: 30</u></b>	<b><u>Marks: 25</u></b>
<ul style="list-style-type: none"> <li>a. Communication Skill (Instant Interpretation)</li> <li>b. Typing Skills in Persian</li> <li>c. Paper Presentation Skill</li> <li>d. Preparation for Job Interview</li> </ul>		

**Suggested Readings:**

1. Namdariyan, Taqipur: Dars-e-Farsi, Published by Institute for Humanities & Cultural Studies, Tehran, Iran, 1378/1999
2. Kumar, Dr. Rajinder: Elementary Persian Grammar, Harjeet Publication, Delhi-110 034, 2009
3. Sufi Abdul Aziz: Essentials of Persian Translation, Indo-Iran Society, Lal Kuan, Delhi 110 006, 1999
4. Thackston, Wheeler: An Introduction to Persian, Bethesba, Ibex Publication, Maryland, U.S.A., 2009
5. Ahmed Saeed, Lessons in Modern Persian, Ministry of Defence, Monumental Publishers, 1988

**Serial No: 181**

**SEC0318103**

**विषय: हिन्दी**

**अनुवाद-कला और व्यावहारिक अनुवाद के विविध आयाम**

**कोर्स-लेवल : 100-199**

**कुल अंक : 75**

**बाह्य परीक्षण : 30**

**आंतरिक परीक्षण : 20**

इकाई	क्रेडिट	पाठ्य-विषय	कक्षा-संख्या	अंक (बाह्य परीक्षण+ आंतरिक परीक्षण+व्यावहारिक परीक्षण)
1	1	अनुवाद: परिभाषा,स्वरूप,प्रक्रिया और उपयोगिता;शब्दानुवाद, भावानुवाद और सटीक/आदर्श अनुवाद के स्वरूप	15	25 (10+7+8)
2	1	कविता,कहानी, उपन्यास और निबन्ध का अनुवाद : हिन्दी से अंग्रेजी और असमीया में तथा असमीया से हिन्दी में	15	25 (10+7+8)
3	1	ज्ञान, विज्ञान और विधि से संबंधित सामग्रियों का अंग्रेजी से हिन्दी में अनुवाद ; कार्यालयी पत्राचार (सरकारी पत्र, अर्ध-सरकारी पत्र, परिपत्र, ज्ञापन,कार्यालयी आदेश, अनुस्मारक, अधिसूचना) और पत्रकारिता से जुड़ी सामग्रियों का अंग्रेजी से हिन्दी में और हिन्दी से अंग्रेजी में अनुवाद	15	25(10+6+9)

**द्रष्टव्य:** व्यावहारिक परीक्षण के अन्तर्गत पाठ्यक्रम में उल्लिखित सर्जनात्मक साहित्य और गैर-सर्जनात्मक साहित्य (ज्ञान, विज्ञान, विधि, कार्यालयी, पत्रकारिता आदि) के दो-दो नमूनों के अनुवाद सम्मिलित रहेंगे। विभागीय प्राध्यापकगण, महाविद्यालय के अध्यक्ष/शिक्षण-संस्थान के प्रमुख अथवा उनके द्वारा नामित प्रतिनिधि के द्वारा मौखिकी-सहित मूल्यांकन-कार्य सम्पन्न होगा।

### **सन्दर्भ ग्रन्थ:**

1. अनुवादविज्ञान-डॉ॰ भोलानाथतिवारी, किताबघर प्रकाशन, नयी दिल्ली।



2. अनुवाद-सुधा(भाग-1 एवं भाग-2)--डॉ० अच्युतशर्मा(संपा.),शब्दभारती,गुवाहाटी ।
3. अनुवाद कला- डॉ० एन. ई. विश्वनाथ अय्यर, प्रभात प्रकाशन,दिल्ली ।
4. अनुवाद : सिद्धान्त एवं व्यवहार- डॉ० जयन्ती प्रसाद नौटियाल,राधाकृष्ण प्रकाशन,नयी दिल्ली ।
5. कार्यालय सहायिका- हरिबाबू कंसल,केन्द्रीय सचिवालय हिन्दी परिषद,दिल्ली ।
6. कार्यालय प्रवीणता- हरिबाबू कंसल,सुधांशु बंधु, नयी दिल्ली ।
7. पत्रकारिताऔरपत्रकारिता - अरुणजैन, हिन्दीबुकसेंटर, आसफअलीरोड, नयी दिल्ली ।
8. पत्रकारिताकेनएआयाम-एस.के. दुबे,लोकभारतीप्रकाशन,इलाहाबाद।
9. सिर्फपत्रकारिता-अजयकुमारसिंह,लोकभारतीप्रकाशन,इलाहाबाद ।
10. How to Translate into English --R.P. Sinha,Bharati Bhawan,Patna.
11. हिन्दी-English एक्सपर्ट Translator--S.C. Gupta,Arihant Publications Private Limited.

- पूर्व-योग्यता :हिन्दी-सहित 10वीं कक्षा-उत्तीर्ण
- स्नातक-गुण :

**कोर्स का लक्ष्य:** विद्यार्थियों को अनुवाद-सिद्धान्त की सामान्य जानकारी प्रदान करके सर्जनात्मक साहित्य, ज्ञान-विज्ञान का साहित्य, कार्यालयी दस्तावेज़, पत्रकारिता से जुड़ी सामग्री इत्यादि के व्यावहारिक अनुवाद के सन्दर्भ में उनकी दक्षता में वृद्धि लाना प्रस्तुत पाठ्यक्रम का मूल लक्ष्य है ।

**शिक्षण-उपलब्धि:** अनुवादकौशल के सैद्धान्तिक एवं व्यावहारिक पहलुओं से संबंधित इस पाठ्यक्रम को - इस रूप में तैयार किया गया है ताकि विद्यार्थीगण अनुवादके विषयक आधारभूत ज्ञान प्राप्त कर-कला-कार्य को ग्रहण कर सकें ।-आजीविका के तौर पर अनुवाद

- सैद्धान्तिक क्रेडिट:2
- व्यावहारिक क्रेडिट:1
- आवश्यक कक्षाओं की संख्या:45  
प्रत्यक्ष कक्षाएँ :45  
अप्रत्यक्ष कक्षाएँ:0

\*\*\*\*\*