OFFICE OF THE CONTOLLER OF EXAMINATIONS:

TEZPUR UNIVERSITY: NAPAAM

NOTIFICATION

DATED 27.07.2012

In continuation of the notification issued vide memo No. F. 15-10/ 1/ 2011 (Acad)/ dated 03.07.2012, this is for information of all the concerned that the syllabuses of the courses to be offered as IDCs by the respective departments in the Autumn Semester 2012 as follows:

Sl. No	**Offering Dept./Centre**	**Name of the IDC**
1.	Env. Sc	ES541 Contemporary Environmental issues
2.	FET	FT300 Transport Phenomenon in Biological Bioenvironmental System
3.	Chemical Sciences	CH501 Chemical Applications of Spectroscopy
4.	Energy	EN598 Energy and Society
5.	EFL	EG579 Indian Novels and English Translation (1st Sem)
		* EG 591 Shakespeare for the Modern World (3rd Sem)
		* CL 121 Basic Chinese I
		* FL 101 Basic French
		* GL 101 Basic German
10.	ECE	BE521 Basic Bioelectronics
11.	Physics	PH600 Introduction to the Cosmos
12.	Hindi	HN501 Samprasarmulak Hindi
13.	CSE	CO101 Introductory Computing
		CO504 Natural Language Processing
14.	Math. Sc.	MS450 Elementary Mathematics and Statistics
15.	MCJ	MC486 Communication principle and Practices (1st Sem)
		* MC488 Introduction to film studies (3rd Sem)
17.	BA	BM501 Foundation of Management
18.	Disaster Management	DM 301 Disaster Management
19.	IPR cell	IP 401 Intellectual Property Right (PG level)
20.	Sociology	* SC421 Introducing Sociology (1st Sem.)
		* SC508 Environment and Society (3rd Sem)
22.	MBBT *	……. Biosafety and Bioethics
23.	Assamese Studies *	SD 100 Sattriya Dance
24.	Cultural Studies	CP 524 Ethnicity , Identity and Culture

* These are the proposed IDCs to be offered subject to approval by the University. Heads of the Departments/ Centres are requested to submit the syllabuses of the proposed IDCs routed through the Board of Studies and the School Boards of the concerned Schools immediately for approval of the University.

Further, the time slot fixed for the IDCs as in earlier semesters will be from 9.15 a.m. to 10.15 a.m. on every Tuesday, Wednesday and Friday. There shall be a break of 15 minutes after the IDC class to enable the students to reach their respective Departments after attending the IDC class. The Heads of the Departments are requested to adjust their class routines accordingly.

Sd/-B. Sahariah

Controller of Examinations

Memo No. F. 15-10/ 1/ 2011 (Acad)/ Date:

Copy to:

1. The Pro Vice-Chancellor, TU
2. The Deans of all Schools, TU
3. The Heads of all the Departments/ Centres, TU. with a request to up load the syllabuses in the Department's / Centre's web pages and inform the students.
4. Secretary to the Vice Chancellor for information of the Vice Chancellor.
5. Concerned file.

Controller of Examinations

DEPARTMENT OF MATHEMATICAL SCIENCES

MS 450 Elementary Mathematics and Statistics (L3 T0 P0 CH 3) (3 credits)

Mathematics:

Real sequences, Cauchy sequence, Cauchy's general principle of convergence, infinite series, basic properties of infinite series, Simple tests for convergence.

Limit, continuity, differentiability of functions of a single variable; Mean Value Theorems: Rolle's theorem, Taylor's theorem.

Fundamental Theorems of integral and differential calculus.

First order ordinary differential equations, second order ordinary differential equations with constant coefficients.

Applications of ordinary differential equations.

Algebra of matrices, symmetric, skew symmetric, Hermitian and Skew Hermitian matrices, elementary transformations, reduction to echelon and normal form, System of linear equations, existence and uniqueness of solutions, rank of a matrix.

Statistics:

Statistical methods: frequency distribution, measures of location, dispersion, skewness and Kurtosis, Principle of least square, co-relation, linear OLS regression

Textbooks:

1. Bartle, R. G. and Sherbert, D.R. Introduction to Real Analysis (John Wiley and Sons, New Delhi, 2007).

2. Simmons, G.F. Differential Equations with Applications and Historical Notes (Tata-McGraw- Hill, New Delhi, 1991)

3. Hoffman, K. and Kunze, R. Linear Algebra (Prentice Hall, New Delhi, 2008)

4. Medhi, J. Statistical methods: An Introductory Text (New Age International (P) Ltd., New Delhi, 2000)

References:

1. Boyce W. E. and Diprima R. C. Elementary Differental Equations (John Wiley, India, 2000)

2. Goldberg, R. R. Methods of Real Analysis, (Oxford and IBH, 1970)

3. Gupta, S. C. and Kapoor, V. K. Fundamentals of Mathematical Statistics (S. Chand & Co., 2007)

4. Datta, K. B. Matrix and Linear Algebra (Prentice Hall of India, 2000)

BM 501 (IDC): Foundation of Management

Need for management: Definition, managerial skills, productivity, effectiveness and efficiency, contributions of Taylor and Fayol; Contributions of Gannt, Gilbreth, Roethlisberger, McKinsey's 7S framework, managerial roles, external environment;

Planning: Contribution of planning to purpose and objectives, types of plans, steps in planning, MBO, Strategic planning process, TOWS matrix, industry analysis and generic competitive strategies by Porter, effective implementation of strategies, forecasting;

Organising: Formal and informal organization, span of management, process of organising; Different forms of departmentation, matrix organization, SBUs; Line and staff, factors affecting centralization & decentralization, delegation, mistakes in organising;

Controlling: Critical points and standards, control as a feedback, real time control; Feed forward control, requirements for effective control, control techniques; Profit and loss control through ROI, direct versus preventive control, self audit;

Management Styles: Different Management Styles in practice.

Suggested reading:

Text Book:

1. Koonz, Donnel, Weirich: Management – A global perspective, McGraw-Hill, New York, Latest edition.

References:

1. Stoner, J.A.F., Freeman, R.E. & D.R. Gilbert: Management, Pearson Education, 6th edition, 2004
2. Business columns of print and electronic media.

Submitted by: Dr(Mrs) Juri Gogoi Konwar, Department of Cultural Studies

Tezpur University

School of Humanities and Social Sciences

Department of Cultural Studies

Course Code: CP 524 Credit: 03 (L- 3, T - 0, P - 0)

Course Title: ETHNICITY, IDENTITY and CULTURE

01. Abstract: This paper will provide introductory ideas to participating students about human races and ethnicity, how they are viewed differently across different situations and issues relating to the construction of races. The course will be on the ethnically diverse and culturally rich regions of North East India.

02. Objective: On the back ground the abstracted presented above, the objectives of the course are to -

01. study and analyse the ethnicity prospects and problems.

02. examine the definition in the context of identity crisis and social disturbances in North East India including gender issues.

03. Prerequisite for the course

The course is prepared as IDC for MA Programme, 3rd semester of the Department of Cultural Studies. In view of the participating students being from the various disciplines, the course is designed in such a way that the students opting for this IDC in cultural studies would be able to understand Ethnicity, identity, construction of race, ethnic conflict, gender related issues etc. It is expected that the students would be able to study ethnicity in the context of real situation of North East India.

04. Course outline

(i) Race and ethnicity: concepts of race, evolution and race distribution.

(ii) Emergence of the notion of ethnicity as a source of power and politics of difference.

(iii) Gender, ethnicity and nationhood.

(iv) Ethnicity and the politics of language.

(v) Tribalism, competition and conflicts, societal problems and prospects.

(vi) Representation of the North East India in Media.

05. Suggested reading

1. Baruah, Sanjib. *India Against Itself* (OUP, New Delhi, 2008)

2. Bhaba, Homi K. *The Location of Culture* (Routledge, London, 1994)

3. Danda, Ajit K. *Ethnicity in India* (DK Publishers, New Delhi, 1991)

4. Farner, R. F(ed). *Nationalism, Ethnicity and Identity. Cross National and comparative Perspectives* (Transaction Publishers, New Jersey, 2004)

5. Hazarika,S. *Writing on the wall: Reflections on the North East* (Penguin Books, 2008)

Other Resources

1. Buragohain H and P. Buragohain. *Scrolls of Strife* (Rupa and Co, New Delhi,2011)

Journals

1. *Ethnic and Racial Studies,* Tylor and Fransis

2. *Ethnicities,* Sage Journal, http://www.sagepub.com/journalsReprints.nav

06. (a) Lecture Plan

Topic	No of Lectures
01. Overview of the course	1
02. Concepts of race, evolution and distribution	3
03. Racism and its manifestation	2
04. Emergence of the notion of ethnicity as a source of power and politics of difference	4
05. Ethnicity and identity	2
06. Tribalism, identity crisis and conflict	2
Class Test (1st week of September 2012)	
07. Culture conflict	2
08. Cross cultural encounter	2
Mid Term Exam (September 19th to 27th 2012)	
07. Gender, ethnicity and nationhood	2
08. The ethnic woman vis-à-vis North East India	3
09. Group Presentation (Visual/Power point presentation)	4
10. Ethnicity and the politics of language	3
11. Ideologies of identification	3
12. Group Presentation (Oral)	3
13. Representation of the North East India in Media	2
14. Summing up	2

End Term Exam (December 3rd to 11th 2012)

06. (b) Evaluation plan

- Written exams (MT 60 and ET 100) 160
- Class tests 30
- Class presentation 30
- Written assignment 25

07. Pedagogy

a. Lecture and discussion

b. Group presentations by students followed by class discussion

c. Written assignment on a topic (in consultation with the instructor)

- Other reviews

d. Review of books/current issues from news like identity question,

representation of North East India in media

08. Expected outcome

Students would get a chance to understand the current ethnicity problem leading to identity crisis especially in the context of North East India. The same would enable them to look at the issues to critically study the various issues of ethnic groups which would help in making policy decisions in future.

Interdisciplinary Course (IDC) in Disaster Management

(DM 301)

(Syllabus)

Total Credit: 3 (Three)

(L: 3 T: 0 P:0)

Unit 01: Understanding disaster

Concept of disaster

Different approaches

Concept of Risk

Levels of disasters

Disaster phenomena and events *(Global, national and regional)*

Unit 02: Hazards and Vulnerability

Natural and man-made hazards; response time, frequency and forewarning levels of different hazards

Characteristics and damage potential of natural hazards; hazard assessment

Dimensions of vulnerability factors; vulnerability assessment

Vulnerability and disaster risk

Vulnerabilities to flood and earthquake hazards

Unit 03: Disaster management mechanism

Concepts of risk management and crisis management

Disaster management cycle

Response and Recovery

Development, Prevention, Mitigation and Preparedness

Planning for relief

Unit 04: Capacity building

Capacity building: Concept

Structural and nonstructural measures

Capacity assessment; strengthening capacity for reducing risk

Counter-disaster resources and their utility in disaster management

Legislative support at the state and national levels

Unit 05: Coping with disaster

Coping strategies; alternative adjustment processes

Changing concepts of disaster management

Industrial safety plan; safety norms and survival kits

Mass media and disaster management

Unit 06: Planning for disaster management

Strategies for disaster management planning

Steps for formulating a disaster risk reduction plan

Disaster management Act and Policy in India

Organisational structure for disaster management in India

Preparation of state and district disaster management plans

Text books

1. Alexander, D. *Natural Disasters,* ULC press Ltd, London, 1993.
2. Carter, W. N. *Disaster Management: A Disaster Management Handbook,* Asian Development Bank, Bangkok, 1991.
3. Chakrabarty, U. K. *Industrial Disaster Management and Emergency Response,* Asian Books Pvt. Ltd., New Delhi 2007.

References

1. Abarquez I. & Murshed Z. *Community Based Disaster Risk Management: Field Practitioner's Handbook,* ADPC, Bangkok, 2004.
2. Goudie, A. *Geomorphological Techniques,* Unwin Hyman, London 1990.
3. Goswami, S. C. *Remote Sensing Application in North East India,* Purbanchal Prakesh, Guwahati, 1997.
4. *Manual on Natural Disaster Management in India,* NCDM, New Delhi, 2001.

5. *Disaster Management in India,* Ministry of Home Affairs, Government of India, New Delhi, 2011.
6. *National Policy on Disaster Management,* NDMA, New Delhi, 2009.
7. *Disaster Management Act. (2005),* Ministry of Home Affairs, Government of India, New Delhi, 2005.
8. *District Disaster Management Plan-Model Template,* NIDM, New Delhi, 2005.

BE-521: Basic Bioelectronics(IDC) 3 0 0 3 3

Basic Electronics: Semiconductor Materials, chemical and physical bonds, Intrinsic and extrinsic semiconductors, carrier motion in semiconductors – Drift, Diffusion And Recombination, P-N junction diode, Bipolar Junction Transistor (BJT), Field Effect Transistor (FET), Operational Amplifier (OPAMP).

Digital Logic: Boolean Algebra and logic gates, Combinational logic circuit, sequential logic circuit – flip flops.

Biological materials: analogy between semiconductor and biological materials, water and electrolyte solutions; biological molecules - Proteins, Nucleic acids, Phospholipids; cell membrane; Eucaryotic cell.

Motion in solution and chemical reaction: Diffusion, Brownian motion, electrophoresis, enzyme kinetics;

Solid electrolyte junctions: electrode-electrolyte interfaces, Poisson –Boltzmann equation, Membrane transport, Nernst-Plank equation and solution.

Bio-instrumentation: ECG, EEG & EMG

Text Books:

1. E. A. Hall, **Biosensors :** Wiley.1998
2. S. Bone, B. Zabba, **Bioelectronics :** Wiley.1992

Reference Books:

1. Ruddy Ratner, **Biomaterial Science :** Academic Press.1996
2. Massimo Grattarola, Giuseppe Massobrio, **Bioelectronics Handbook, MOSFETs, Biosensors & Neurons :** Mc Graw Hill.1998
3. A P Malvino, **Electronic Principles :** TMH. 2002
4. M. Mano, **Digital Logic and Computer Design :** PHI.2000

EN598 Energy and Society (3+0+0=3)

History of development of life in Earth, earth temperature and atmosphere, geochemical cycles, ecological principles of nature, Global energy scenario, Fuel & energy substitution

Earth resources, energy extraction, conversion and utilization- Solar, biomass, hydro power, wind and other sources of energy .

Power generation from different energy sources .

Energy demand across space and time; Economics importance of utilization of different energy sources.

Energy conservation and management-basic concepts, Energy conservation opportunities in household, transport, lighting etc. Energy Conservation Act.

Global warming; Green House Gas emissions, impacts, mitigation; Sustainability; Externalities, Clean energy technologies; United Nations Framework Convention on Climate Change (UNFCCC); Sustainable development; Kyoto Protocol; Conference of Parties (COP); Clean Development Mechanism (CDM); Prototype Carbon Fund (PCF).

Uncertainties and social cost – benefit analysis of renewable energy systems; conflicts between energy and food security. factors that impact selection of energy technologies and policy instruments.

Text Books

1. Hodge B. K. Alternative Energy Systems, Publisher: Wiley; New Edition ISBN – 10:0470142502
2. Hinrichs & Kleinbach. Energy: Its Use and the Environment, Fourth edition, Thompson Learning, 2005

References

1. S.P. Sukhatme, Solar Energy: principles of Thermal Collection and Storage, Tata McGraw – Hill
2. Johansson Thomas B. ed (1993); Renewable energy: sources for fuels and electricity, Earthscan
3. Craig R. Humphrey, Tammy L. Lewis, and Frederick H. Buttel Belmont. Environment, Energy, and Society: A New Synthesis. CA: Wadsworth Group, 2002.ISBN: 0-534-57955-8
4. Pietro Anthony San, (1980); Biochemical and Photosynthetic aspects of Energy Production, Academic Press, New York

5. Nag P K.(2006); Power Plant Engineering; Steam & Nuclear, Tata McGrawHill, N Delhi
6. Johnson G L, (1985) ; Wind Energy Systems, Prentice Hall Inc, New Jersey
7. Kandpal T.C., H. P. Garg (2003) ; Financial Evaluation of Renewable Energy Technology, Macmilan India Ltd. New Delhi
8. Berman, ER Geothermal Energy, Noyes Data Corporation, New Jersey
9. Kaushika N.D. and Kaushik Kshitij (2004) ; Energy, Ecology and Environment : A Technological Approach. New Delhi, Capital Publishing Company.

Inter-disciplinary elective

FT 300 Transport phenomena in Biological and Bio-environmental Systems

Credit (3-0-0)

Course content:

Unit-I

Heat transfer fundamentals: (09 Lectures)

Equilibrium and energy conservation; Modes of heat transfer; Governing equations and boundary conditions of heat transfer; Heat transfer by conduction: steady-state; Heat transfer by conduction: unsteady-state; Heat transfer by conduction; Heat transfer during phase change; Heat transfer by radiation.

Unit-II

Mass transfer fundamentals: (12 Lectures)

Equilibrium, Mass conservation, and kinetics; Modes of mass transfer; Governing equations and boundary conditions of mass transfer; Diffusion mass transfer: Steady-state; Diffusion mass transfer: unsteady-state; Convection-dispersion and convection-diffusion mass transfer, Porous media flow and filtration.

Unit-III

Transport phenomena and biological systems: (09 Lectures)

Mass transfer through a bio-film; Diffusion of protein in a gel; Maximum possible oxygen uptake by a microorganism; Convective oxygen transfer from a gas bubble to a cell; Diffusive movement of moisture in a solid; Moisture in air in equilibrium with moisture in a solid; Heating in the interior of a compost pile: Effects of diffusion and convection on chemical reactions; Transport of gases between blood and tissues; Transport within cells and transport in organs and organisms.

Unit-IV

Transport phenomena and bioenvironmental Systems: (09 Lectures)

Transport Phenomena in, dispersive movement of hazardous waste in soils (Ground water pollution); Dispersive movement of surface water pollutants; Equilibrium between dissolved and surface adsorbed pesticide; Preferential flow of solutes through the micro-pores; Salt balance in a field; Evaporation into atmosphere and possible reduction in moisture loss by mulching etc.

Text Books:

1. A.K. Datta, (2006). *Biological and Bioenvironmental Heat and Mass transfer*. Taylor & Francis, Boca Raton, Florida.
2. A.K. Datta (2001). *Transport Phenomena in Food Process Engineering.* Himalaya Publishing House, 1st Edition.
3. J. P. Holman (2008). *Heat Transfer (in SI Units.).* Tata McGraw Hill, 9th Edition (Special Indian Edition).

References:

1. F. P. Incropera, and P. W.David (1990). *Fundamentals of Heat and Mass Transfer*, Wiley, 3rd Edition.
2. G.A. Tuskey, F. Yuan, and D.F. Katz (2004).*Pearson Transport Phenomena in Biological Systems*. Prentice Hall, New Jarsey.

SC 508 Environment and Society **2 1 0 3**

Objective:

This course seeks to develop in the students an understanding of the interface between environment and society and various issues emerging out of this relationship. Students will also be familiarized with the policy prescriptions and mobilizations around the environmental questions.

Course contents:

Unit I- Environment and Society - Relationship

Unit II- Sociological Approaches to Environment

Unit III - Environmental Issues, Movement and Policy

Text Books:

Bell, Michael Mayerfeld , 2009. *An Invitation to Environmental Sociology*. Pine Forge Press. New Delhi.

Gadgil, Madhav and Ramchandra Guha. 1996. *Ecology and Equity: The Use and Abuse of Nature in contemporary India*. OUP, New Delhi.

Reference Books:

Guha, Ramachandra. 1994 *Social Ecology*, Oxford University Press, Bombay.

Schnaiberg, A. 1980. *The Environment*. OUP. New York.

SC421 Introducing Sociology **2 1 0 3**

Objective:

This course seeks to develop in the students an understanding of Sociology as a science of society and also to familiarize them with the major sociological perspectives

Course Contents:

Unit I- Emergence of Sociology: Intellectual and Social Forces

Unit II - Sociological Perspectives

Unit III - Sociology and common sense

Text Books:

Beteille, Andre. 2003 *Sociology*. Oxford University Press. New Delhi

Bottomore, T.B. *Sociology: A Guide to Problems and Literature*. (George, Bombay, 1972)

Reference Books :

Mills. C.W. 2000 (40th Edition) .*The Sociological Imagination*, Oxford University Press, London

DEPARTMENT OF PHYSICS:: TEZPUR UNIVERSITY

Interdisciplinary (IDC) course for Autumn Semester-2012

PH 600: Introduction to the Cosmos **L3-T0-P0-CH3-CR3**

Brief idea about celestial co-ordinate system, luminosity and magnitude of astrophysical objects.

Telescopes and its working (brief idea of ground and space based telescopes), CCD detectors. Role of Earth's atmosphere in observations (atmospheric extinction). Electromagnetic spectrum from the cosmos and the information gained from this.

Stars and Constellations. Qualitative idea about formation of a star, equation of hydrostatic equilibrium, nuclear reaction (p-p and CNO cycles), chemical abundances in a star. Measurements of mass, luminosity and temperature of a star. Saha equation.

H-R diagram and location of different stages of star. Sun as a star. Planets, satellites, asteroids and interplanetary dust. Stellar Evolution.

Astrophysical dust and molecules – Dust and molecules in space. Astrophysical plasma.

Red shift. Hubble's law. Hubble's classification of galaxies. The local group of galaxies. Radio galaxies, Quasars and Active Galactic Nuclei (AGN). Formation of the Universe.

Fundamental forces in nature. Big bang and formation of the first particles, formation of the first elements. Abundances of various elements in the Universe.

Text Books:-

1. Shu, F. H., *The Physical Universe* (McGraw-Hill, 2010)
2. Abhyankar, K. D., *Astrophysics: stars and galaxies* (Universities Press, 2002)

Reference Books:-

1. Weinberg, S. *The First Three Minutes: A Modern View Of The Origin Of The Universe* (Basic Books, 1993)
2. Tayler, R. J., *The Stars: Their Structure and Evolution* (Cambridge University Press; 2 edition, 1994)
3. Narlikar, J. V., *An Introduction to Cosmology* (Cambridge University Press; 3 edition, 2002)
4. Hawking, S., *On The Shoulders Of Giants,* (Running Press, 2002)

CH-501: Chemical Applications of Spectroscopy

L-T-P: 3-0-0, Credit-3

Basic theory, instrumentation, laboratory techniques and applications of UV-Visible, IR and Raman Spectroscopy in structure determination in organic molecules and co-ordination compounds.

Optical Rotatory Dispersion and Circular Dichroism: Definition, Deduction of absolute configuration, octane rule for ketones.

Mass spectrometry: Basic principles and instrumentation, mass spectral fragmentation of organic compounds, applications to organometallic compounds.

NMR spectroscopy: Chemical shift, factors affecting the chemical shifts and their interpretation, coupling constants. Double resonance, saturation, Nuclear Overhouser effect (NOE) and dynamic nuclear magnetic resonance. ^{13}C NMR spectroscopy – chemical shift, ^{13}C coupling constant. 2D- NMR spectroscopy: DEPT, INEPT terminology, multinuclear NMR.

EPR spectroscopy: Evaluation of g values and metal hyperfine coupling constants of metal ions, EPR spectroscopy of doublet radical systems.

Photoelectron spectroscopy: EXAFS, XPS and UPS spectroscopy.

Integration of all the above methods for structure determination, applications of electronic, fluorescence, and IR spectroscopy in the study of molecular interaction and reactions and equilibria, significance of isosbestic point, study of excited states, isomerism etc.

Books Suggested

1. Dyer, J. R. *Application of Spectroscopy of Organic Compounds*, (Prentice Hall, 2004).
2. Williams, D. H., Fleming, I. *Spectroscopic Methods in Organic Chemistry*, (Tata McGraw-Hill, 1988).

Reference book

1. Parish, R. V. *NMR, NQR, EPR and Mössbauer Spectroscopy in Inorganic Chemistry*, (Ellis Horwood, 1991).

IDCs to be offered by the Department of EFL for Autumn Semester, 2012

1st Semester

EG 579 Indian Novels in English Translation CR 3 L2 T1 P 0 4

This course aims at introducing students to classics in Indian Fiction available in English translation. The course will (a) enhance the understanding of bhasa consciousness in India and (b) consolidate the understanding of Indian modernities, both colonial and alternative. With this exposure it is expected that MA students already familiar with the English novel will learn to rethink the history and reception of the novel as a literary form.

Texts prescribed

Fakirmohan Senapati: *Six Acres and a Third*. Trans. Rabi Misra, Satya Mohanty, JK Nayak, and Paul St Pierre (Penguin, New Delhi, 2009).

Rabindranath Tagore: *Home and the World* (Penguin, New Delhi, 2006)

Premchand: *Godan.* Trans. Christopher King (Oxford University Press, New Delhi, 2006).

Syed Abdul Malik: *Longing for Sunshine.* Trans. Pradip Acharya (Sahitya Akademi. New Delhi, 1997).

U.R. Ananthamurthy: *Samskara.* Trans. Author. (Oxford University Press, New Delhi, 1983).

Reference Books

France, Peter (ed). *The Oxford Guide to Literature in English Translation* (Oxford University Press, New York, 2000).

Simon, Sherry, and St-Pierre, Paul (eds.) *Changing the Terms: Translating in the Postcolonial Era*. Orient Longman, New Delhi, 2008.

3rd Semester

Shakespeare for the Modern World **CR3 L3 T1 P0**

Objective:

The course aims at exposing students to the joys of reading, watching and doing Shakespeare in order to understand the contemporary relevance of the great Elizabethan poet-playwright. The course will work with texts and audiovisual productions of Shakespeare's plays.

Texts prescribed

1. *King Lear*
2. *Othello*
3. *Antony and Cleopatra*
4. *Measure for Measure*

Sd/-

(Farheena Danta)

Head, Dept. of EFL

Syllabus for the Introductory IPR course (Postgraduate level)

Course Name: "IP 401 Intellectual Property Right" (2-1-0, CR 3)

Total number of lectures plus tutorials	42 in one semester each of one hour
Effective number of lectures	30 in one semester
Duration of each lecture	one hour
Number of tutorials	12 (one hour each)

Course work and lectures

Introduction to IPR: Concept of property and ownership, concept of intellectual property and industrial property and its relationship with law, different forms of IPR, why IPR are important for the nation, international character of IPR and its importance in international trade, role of IPR in corporate decision making, patents, copyrights, trademarks, industrial designs, geographical indications, protection of IC lay-out design, protection of undisclosed information and protection of new plant variety. (Lectures will use data, examples and case studies)

4 hr

Brief history of IPR, international treaties such as Paris Convention, World Trade Organization, Trade Related Aspects of Intellectual Property Rights (TRIPS), Berne Convention, World Intellectual Property Organization

2 hr

Patents: Concept of patents, rights available through patents, concept of novelty, inventiveness and utility, patent searches, Indian Patents Act (important features), non- patentable inventions, provisional and complete specification, meaning of patent claim, procedure for obtaining and maintaining patents in India, infringement of patents, conditions of filing a patent application, filing patents in foreign countries through Patent Cooperation Treaty, some idea about compulsory licensing (case studies on inventions related to software, drugs, engineering, biotechnology etc will be integral part)

6 hr

Copyrights: Meaning of copyrights and its importance to business, culture and literature, copyrightable works, meaning of copyright, ownership of copyrights and rights of the owner, fair use, licensing of copyrights, copyright societies, registration of copyrights, infringement of copyrights, rights of broadcasters and performers, civil remedies

3 hr

Trademarks: Definition of trademarks, importance of trademarks in business and trade, Indian Trademarks Act, different types of marks, selection and protection of trademarks, concept of passing off, trademark infringement, classification of trademarks, procedure for obtaining trademarks, management of trademarks.

2.5 hr

Industrial design: Indian Designs Act, What are protectable designs, procedure for protecting designs, classification of designs, importance of designs

1hr

Protection of undisclosed information: trade secrets, possible trade secrets, necessity of trade secrets, how to maintain trade secrets, importance in trade and business

2 hr

Geographical indications: concept, appellation of origin, Indian laws, importance for artisans, handicraft etc., GI registration in India, documentation, eligibility to be applicant, filing a GI applications, trade benefits of GI

2 hr

Plant variety protection: Indian Act, concept of novelty, distinctness, uniformity and stability, term of protection, how to protect new variety, farmer's variety, farmers' rights, benefit sharing

1 hr

IPR and traditional knowledge

2 hr

Valuation and licensing of IPR

2 hr

Management of IPR 2.5 hr

Total 30 hr

Tutorials: 12 hrs

1.Quizzes

2.Group seminar

Formation of groups (15 groups of three persons)

Familiarization with the theme

Allotment of topics (15 topics)

Each group will have to make a presentation for about 20 minutes

3. Questions and answers

4. Term paper

5. Case study (one case study as an assignment)

Topics for group seminar

1. Compulsory licensing
2. Fair use in copyrights
3. Relevance of IPR in safeguarding traditional knowledge
4. International patent classification systems
5. Agreement on TRIPS
6. Patent filing system in India
7. IPR as corporate function
8. Case studies in geographical indications- scotch, champaign, Darjeeling tea, Chanderi sari
9. Importance of IPR to biotechnology industry
10. Software patents
11. Copyright societies
12. Selecting a trademark and its management
13. IPR and standards
14. Patent pooling
15. IP valuation systems

External faculty will be utilized for some topics. Travel funds are available with the MHRD Chair.

Reading material and reference books

1. Lecture material will be distributed during class.

2. Various Acts on IPR such as The Patents Act, The Copyright Act, Trademarks Act, The Design Act, The Protection of Plant Varieties and Farmers' Right Act, The Geographical Indications of Goods Act, The Semiconductor Integrated Circuits layout Design Act.

3. Reading material on international treaties

4. FAQ on IPR prepared by Technology Information Forecasting and Assessment Council, Department of Science and Technology, New Delhi (Available on TIFAC website)

5. Management of IPR In India, R Saha (available on the TIFAC website)

6. Various links on the web will be provided from time to time.

7. Books prescribed:

   i. Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities [Paperback],Darrell A. Posey and Graham Dutfield , IDRC Books; annotated edition (June 1996).

   ii. Global Biopiracy: Patents, Plants, and Indigenous Knowledge [Paperback],Ikechi Mgbeoji, Cornell University Press; 1 edition (August 1, 2006).

   iii. Intellectual Property Rights: Innovation, Governance And the Institutional Environment [Hardcover]
   Birgitte Andersen (Editor), Edward Elgar Publishing (September 30, 2006).

   iv. Copyright's Paradox [Paperback],Neil Weinstock Netanel, Oxford University Press, USA (April 23, 2010).

   v. Intellectual Property Management: A Guide for Scientists, Engineers, Financiers, and Managers [Hardcover], by Claas Junghans, Adam Levy, Rolf Sander and Tobias Boeckh (Mar 7, 2006) Author), Jan Dirk Heerma (Contributor), Christoph Regierer (Contributor), Wiley-VCH; 1 edition (March 7, 2006).

   vi. Agriculture and Intellectual Property Rights: [Hardcover],Vittorio Santaniello (Author), Robert E Evenson (Author), David Zilberman (Author), Gerald A Carlson (Author), CABI; First edition (July 14, 2000).

Department of English and Foreign Languages
Tezpur University

Certificate Course in Chinese (IDC)

CL 121: Basic Chinese - I (Autumn Semester)

Objective

By the end of the course, students are expected to have a good command of Mandarin pronunciation, part of basic grammar, an active vocabulary of over 100 words, basic sentence patterns, and basic reading and writing skills in the Ghinese language.

Syllabus (Outline of Course Content)

L – T – P – CR
2 – 1 – 0 – 3

A. Developing Oral Skills [Intensive and Supplementary Vocabulary]

- **GREETINGS**: Introduction to Chinese Phonetics; Writing System; Tones; Spelling Rules; Inquiring about Health, Work and Family; Conveying Regards
- **INTRODUCING ONESELF AND OTHERS:** Teacher-Student Introduction; Introducing one's Institute; Introducing a Foreigner Friend
- **ASKING FOR PERSONAL INFORMATION**: Name, Native Country, Address, Telephone Number, Family Members
- **TALKING ABOUT DATE**, Month, Year; Days of the Week; Birthday
- **TALKING ABOUT TIME**: Office Hours; School Hours
- **TALKING ABOUT AGE**: Ways to Express Age
- **TALKING ABOUT PLANS** - during Weekend, Holidays, Business Trip, on Study and Future

P T O

B. Outline of Grammar

Chinese Numerals - Nominal Classifiers – Sentences with Adjectival Predicate - Interrogative Sentences - Structural Particle - Verbs and Verbal Classifiers - Interrogative Pronouns and Prepositions - Sentences with Nominal Predicate - Affirmative-Negative Questions - - Modal Particle indicating Change - Alternative Questions - Confirmation Question - Approximate Numbers - Aspect Particle indicating Completion of Action - Reduplication of Verbs - Modal Verbs

Text Book:

Beijing Language Institute. comp., *CHINESE CONVERSATION FOR FOREIGNERS* (LU) Vol 1 (selected lessons). Beijing: BLCUP, 2006

Reference Books:

1. Guo Zhenhua, *A Concise Chinese Grammar*. Beijing: Sinolingua, 2000
2. Liu Ying, ed. *Easy Way to the Correct Chinese Pronunciation*. Beijing : BLCUP, 2004
3. Patrick Lin, comp.*500 Basic Chinese Characters* (Revised Edition). Beijing: Sinolingua, 1993
4. Joël Bellassen and Zhang Pengpeng, *A Key to Chinese Speech and Writing* Vol. 1. Beijing: Sinolingua, 1997
5. *Concise English-Chinese/Chinese-English Dictionary* (Jingxuan Ying-Han/Han-Ying Cidian). Beijing: The Commercial Press, 1986

26/7/12

HEAD
Dept. of English & Foreign Languages
TEZPUR UNIVERSITY

TEZPUR UNIVERSITY
DEPARTMENT OF ENGLISH & FOREIGN LANGUAGES
NAPAAM: : TEZPUR - 784 028 :: ASSAM

	C	L	T	P	CH
FL101: Basic French (IDC)	3	3	0	0	3

Objective: This course is meant to acquaint learners with basic grammar and vocabulary of French, in order to help them acquire basic communication skills in the language.

Unité I

Grammaire et Vocabulaire (**Grammar and vocabulary**)

1. (a) Les professions , Les Nationalities Les Nombres , Presentation Gendre , Les Verbes et les conjugaisons (Singulier)
   (b) Les articles, Féminin Pluriel, Interrogation, La Negation, Les Jours et les Mois, Les Nombres, Les Verbes
   (c) Les Prépositions, Interroger, Proposer, S'excuser, Les verbes
   (d) Interroger, les trois form d'interrogation, Inviter, Demander, L'impératif, La Négation, Les Verbes
   (e) L'adjectif, Interroger/Répondre, Adjectif interrogative, Les Nombres, Les Verbes (Pluriels de la conjugation des Verbes)

Communication (Unite –I)

(i) Faire connaissance, (ii) Inviter et répondre à une invitation
(ii) Decrire les personnes

Civilisation (Unite- I)

(i) Paris, monuments et lieux publics
(ii) La vie de quatre parisiens de professions differents.

Unité 2

Grammaire et Vocabulaire (Grammar and vocabulary)

(a) Le logement, Localiser, Montrer, Les adjectives demontratifs, Les verbes
(b) Les repas, Les articles partitifs, Le pronom après les prepositions, Exprimer la quantité, Les Verbes.
(c) Les verbes pronominaux, Adjectifs possessifs, Les mots indefinis (Rien/Personne)
(d) Les Vétéments, Les Matériaux, Les couleurs, Le poids et les measures, Le prix, Les adjectives possessifs, L'expression de la possession, Les Verbes
(e) La position, L'impératif, Verbes réflichis—Non reflichis, La cuisine, Les Verbes

P.T.O.

Unité-2

Communication

Exprimer l'ordre et l'obligation, Demander et commander, Evaluer et apprécier, Féliciter et remercier

Civilisation

Une region de France; la Bourgogne, Vie quatidienne à la campagne.

****

26/7/12

HEAD

Dept. of English & Foreign Languages

TEZPUR UNIVERSITY

TEZPUR UNIVERSITY
DEPARTMENT OF ENGLISH & FOREIGN LANGUAGES
NAPAAM: : TEZPUR - 784 028 :: ASSAM

	C	L	T	P	CH
GL101: Basic German (IDC)	3	3	0	0	3

Objective: This course is meant to acquaint learners with basic grammar and vocabulary of German, in order to help them acquire basic communication skills in the language.

Sprechübung: Die Landkarte.

1. Gespräch **(Conversation)**
   Der Artikel. Das Verb Präsens (Fragen-Antworten-Sein)
   Personalpronomen: er-es-sie verb + Adjektive

2. Der Unterricht & Der Unterricht 2 **(Noun)**
   Das Nomen: Singular und Plural
   Der Akkusativ
   Das Verb: haben. Heißen-schließen Tinperative
   Fragepronomen. Das Alphabet

3. Die Zahlen **(Numbers/ Counting Time....)**
   Der Satz
   Das Demonstrativpronomen 'das'
   Die Zahlen Die Zeit.

4. Eine Reise **(Verb)**
   Gespräch
   Das Verb: Präsens (Fahren-lesen-nehmen). Vorsilbe und Verb.
   Wortstellung: Präpositionen
   Tag-Monat-Jahr

5. Ein Freund Kommt-Gespräch **(Conversation Dative/Accusative)**
   Das Nomen: Der Dativ
   Der Dativ und Der Akkusativ
   Das Fragepronomen 'wem'?
   Possessiv-pronomen
   Unsere Familie

6. Zwei Studenten in München **(Public Conversation)**
   Das Gasthaus
   Präpositionen: mit dem Dativ: mit dem Akkusative
   Wortstellung
   Das Zeitaduerb
   Die Mahlzeiten

7. Gespräche 1 **(Telephone Conversation)**
   Gespräche 2
   Modalverben (Wollen-müssen- Können) Wortstellung
   Das Personalpronomen Wortstellung, Die Uhrzeiten
   Ein Telefongespräch

P.T.O.→

8. Mein Haus **(Sentences)**
   Ich will in die Wohnung gehen
   Ich will ablegen
   Das Demonstrativpronomen 'dies'
   Woher?- Wo?- Wohin?
   Präpositionen mit dem
   Akkusativ oder dem Dativ
   Zimmer zu vermieten

26/7/12

HEAD
Dept. of English & Foreign Languages
TEZPUR UNIVERSITY

CO 504 Natural Language Processing L-T-P: 3-0-0 Credits 3

Syllabus

Introduction- Human languages, models, ambiguity, processing paradigms; Phases in natural language processing, applications.

Text representation in computers, encoding schemes.

Linguistics resources- Introduction to corpus, elements in balanced corpus, TreeBank, PropBank, WordNet, VerbNet etc. Resource management with XML, Management of linguistic data with the help of GATE, NLTK.

Regular expressions, Finite State Automata, word recognition, lexicon.

Morphology, acquisition models, Finite State Transducer.

N-grams, smoothing, entropy, HMM, ME, SVM, CRF.

Part of Speech tagging- Stochastic POS tagging, HMM, Transformation based tagging (TBL), Handling of unknown words, named entities, multi word expressions.

A survey on natural language grammars, lexeme, phonemes, phrases and idioms, word order, agreement, tense, aspect and mood and agreement, Context Free Grammar, spoken language syntax.

Parsing- Unification, probabilistic parsing, TreeBank.

Semantics- Meaning representation, semantic analysis, lexical semantics, WordNet

Word Sense Disambiguation- Selectional restriction, machine learning approaches, dictionary based approaches.

Discourse- Reference resolution, constraints on co-reference, algorithm for pronoun resolution, text coherence, discourse structure.

Applications of NLP- Spell-checking, Summarization

Information Retrieval- Vector space model, term weighting, homonymy, polysemy, synonymy, improving user queries.

Machine Translation– Overview.

Textbook:

1. Daniel Jurafsky and James H Martin. Speech and Language Processing, 2e, Pearson Education, 2009

Reference Books:

1. James A.. Natural language Understanding 2e, Pearson Education, 1994
2. Bharati A., Sangal R., Chaitanya V.. Natural language processing: a Paninian perspective, PHI, 2000
3. Siddiqui T., Tiwary U. S.. Natural language processing and Information retrieval, OUP, 2008

CO101 Introductory Computing

3 - 1 - 0 : 4 Credits : 4 Hours *Prerequsites:* None

Computer Fundamentals

Concept of Programming and Programing Languages

Organization of a Computer

History, Generations, Classification of Computers;

Introduction to Programming:

Concept of Algorithm, Flow Chart, Pseudocode, Illustrative Problem Solving Examples. Features of a Programming Language: Character Set, Identifiers, Keywords, Data Types, Variables, Declarations, Operators & Expressions; Statements: Assignment, Input/Output; Flow Control- Conditionals and Branching; Iteration; Functions, Function Types, Scope Rule; Recursion; Arrays, Pointers, Structures. (A programming language like C/C++ shall be used as a basis language. The same language is to be used for the laboratory).

Books:

1. Programming in C, Balaguruswamy.

2. Let us C, Kanetkar Y.

3. Programming in C, Gotfreid, McGrawHill

4. Fundamentals of Computers, Rajaram, V.

Reference:

5. The Elements of Programming Style, Kerningham, B. W.

6. Techniques of Program Structures and Design, Yourdon, E.

7. Theory and Problems of Computers and Programming, Schied, F. S.

8. The C Programming Language, Kerningham & Ritchie.

Course-Plan

School:Humanities and Social Sciences

Department: Centre for Assamese Studies

Course Code: SD100

Course Name: Sattriya Dance

Instructor: Dr. D C Barua, Dr. Suranjana Barua, Bhupali Kashyap

1. Abstract:

This course will aim at the introduction of Sattriya as a living and emerging dance tradition of Assam. The course will have a three-dimensional perspective: one being the life, work and philosophy of Shrimanta Sankardeva, second being the emergence of Sattriya as one of the major classical dance forms of India and third being the documentation of, and IPR issues related to, Sattriya.

2. Objective:

a) To understand the significance of Sankardeva's contribution towards the society and culture of Assam.

b) To make an effort to propagate the rich cultural heritage established by Sankardeva to the posterity.

3. Prerequisites of the course:

The course is an Interdisciplinary Course for the master's program. It is expected that the students opting for this course have some general knowledge about the Assamese culture, Shrimanta Sankardev and IPR issues.

4. Course outline+ suggested reading:

Life History and Philosophy of Shrimanta Sankardeva

(L=8; T=0; P=0; CH=8)

- Life and Personality.
- Education and Childhood.
- Domestic life and Pilgrimages.
- Introduction to Bhakti movement in Assam.
- Sankardeva's contribution to the Bhakti movement in Assam.
- Origin of Satra and the Social implication of Sankardeva's movement.

Tradition of Indian Classical Dances and Sattriya in that perspective

(L=22; T=0; P=0; CH=22)

- Origin and Development of the Classical dances of India.
- Salient features of the Classical dances of India (Historical and religious significance; similarities and differences with the Sattriya tradition)
- Sankardeva's creation: "Sattriya Dance" (inception, emergence,

significance)

The Structure of Sattriya: Different segments

Spiritual significance of the dance form/ Body Movement and mudras associated with the dance form.

The Ankiya Nat and its significance (role of costume, jewellery, masks)

Sattriya in multiple perspectives: Ritual, tradition, performance, training, music, language and imagery, changes in time (from Naamghar to stage)

IPR and Documentation Issues.

(L=10; T=0; P=0; CH=10)

•Introduction to Intellectual Property Rights (IPR)

Bharat Muni (1996) The Natyashastra, Minshiram Manoharlal Publishers, New Delhi.

Bora, Karuna (2006) Sattriya nirtyar roop darshan, Majuli press. Kamalabari,Majuli.

Borkakoti, Sanjib (1995) Sri Sri Sankardeva. Bani Mandir,Guwahati

Das, Varsha (1992) Traditional Performing Arts of India, Willey Eastern Limited, New Delhi

Mahanta, Pradip jyoti. Ghanakanta bora,(2007) Sattriya Nirtya: Oitijyor abhas. Assam Prakashan Parishad.

Massey, Reginald (2004) India's dances: their history, technique and repertorie. Abhinav Publication.

Narayan, Shovana (2005) Indian Classical Dances. Sterling Publisher Pvt, Ltd.

Neog, Maheswar (1958) Svararekhat Bargit.

Neog, Maheswar and Keshab Changkakati (1978) Sattriya Dances and their Rhythms. Assam Prakashan Parishad.

Neog, Maheswar (1983) Bhaona – The Ritual Play of Assam. Sangeet Natak Academy, Assam

Neog, Maheswar (1998) Sankardeva and his times: Early history of the Vaishnava faith and the Movement in Assam. Lawyer's Book Stall,Guwahati

Neog, Maheswar (2008) Srihastamuktavalli, IGNCA, New Delhi.

Richmond, Farley P., Swann, Darius L. and Zarilli, Philip B. (1993) Indian Theatre: Traditions of Performance, Motilal Banarsidass, Delhi.

Sarma, Satyendra Nath (2005). The Neo-Vaishnavite Movements and the Sattra Institutions of Assam. Lawyers' Book Stall. Guwahati.

Turner, Victor (1986). The Anthropology of Performance. Performing Arts Journal, New York.

Vatsayan, Kapila (1997) Indian Classical Dance. Publications Division, New Delhi.

•Introduction to Copyright: Case Studies

•Copyright for the Performing Arts and Culture

•Documentation: Methods and IPR issues

•The bearers of a living tradition of Assam: the bhokots and the Sattra way of life

•Lecture-Demonstration of Sattriya

Reading Lists:

•

•

•

•

•

•

•

•

•

•

•

•

•

5. (a) Time-Plan:

3 class per week. Total 42 class in one semester.

(b) Evaluation plan:

The evaluation process will be as enumerated below,

Unit test- 40 marks

Mid term Examination- 60 marks

Assignment- 40 marks

End term Examination- 100 marks

6. Pedagogy:

Teaching-learning methods to be used are

Lecture Demonstrations

Quiz

Assignments

7. Expected outcome:

By the end of the course the students will be well acquainted with the knowledge of Shrimanta Sankardeva and his contribution to the Assamese culture specially the Sattriya dance form which is now one of the recognised classical dance forms of India. The course will also help students to gain a brief knowledge about the IPR issues related to the dance form and the issue as a whole.

ES 541: Contemporary Environmental Issues 3-0-0 3

Unit 1 We and our environment

- Environment : Definition & type
  - Difference between physical and social environment
  - Spatial & temporal dimensions of environment
- Fundamentals of environmental ethics
- Nature & its services
- Ecolo

Unit 2 Population growth

- World population growth
- Fundamentals of population growth : processes of change
- India's population growth: pattern & rate
- Population growth & environment: tragedy of commons, food security, carrying

capacity

- Concluding thoughts

gical footprints

Unit 3 Energy and Environment

- Our search for energy
- Current energy sources :conventional & non-conventional energy
- Energy, Society and the Environment
- Current issues related to energy and environment

Unit 4 Air Pollution

- Air quality
- Pollution types and sources
- Air quality and human health
- Current issues

Unit 5 Global Warming

- CO_2 and Greenhouse Effect
- Formation, Measurement, Function and Depletion of Ozone
- Predicting Future Trends in CO_2 and Temperature
- Possible effect of global warming
- Climate change: adaptation, mitigation and vulnerability

Unit 6 Deforestation

- What is Deforestation?
- Rates of Tropical Deforestation

- Agent & Drivers of Deforestation

- Erosion and its impact: natural versus accelerated

- Our agricultural status

Unit 8 Science of soil

- Soil degradation

- Soil degradation and its impact: natural versus accelerated

- Our agriculture and its impact: natural versus accelerated

- Case Study: Deforestation and Forest Scenario in Northeastern India

- Soil conservation Unit 8 Science of soil

Unit 7 Biodiversity

- Definition

- Biodiversity principles, values and threats

- Protecting biodiversity: legal and non-legal bindings

- Biodiversity of NE India

Unit 8 Science of soil

- Soil conservation

Unit 9 Water Crisis

- Hydrological Cycle

- Groundwater & surface water
- Water quality and human health
- Fresh water management

Unit 10 Waste Management

- Definition and Types of waste
- Waste Segregation
- Impact of waste on environment
- Issues related to waste management

Text Books

1. Ahluwalia,V.K., Malhotra S., Environmental Science,Taylor & Francis, (2007)
2. Cuningham, W. P., and Saigo,B.W. Environmental Science: A Global Concern, 5th ed. New York: WCB/McGraw-Hill. (1999)

References :

3. Miller,G.T. Living in the Environment, Books/Cole, (2000)
4. Schumacher, E.F. Small is beautiful Hartley & Marks, (1999)
5. Trunk, J., Trunk, A., Karen Arns, Environmental Science (3rd Edition), CBS College Publishing, (1984)
6. Brady, N.C., The nature and properties of soil, Prentice hall of India Pvt. Lts., (1995)
7. Manual of Municipal Solid Waste Management, CPHEEO, Ministry of Urban Development, Govt. of India, new Delhi, (2000)
8. Manahan, S.E., Environmental Science & Technology – A sustainable approach to Green Science and Technology, Taylor & Francis, (2006)