

ANANDA CHANDRA COLLEGE, JALPAIGURI

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, Gender, Human values, Environment and Sustainability in transacting the Curriculum

Programme name	Programme Code	Course Name	Semester
Bengali -M.A.	CC-14	Sahitya Samalochana, Topic :Naribadi Sahityataty	(M.A.)III
Chemistry –Hons.	SEC-2	Green Methods in Chemistry	III
Economics–Hons.	DSC -12 (DSC-512)	Development Economics (Chapter -4: Environment and Sustainable Development)	V
	DSE 1(DSE-701)	Economics of Health and Education (Chapter -6: Gender Issues in Human Development)	V
Education –Hons.	EDU-H-DSE-T-1	Value Education	V
English –Hons.	CC-3	Indian Classical Literature and Indian writing in English: Topic: Gender and performance	II
	CC- 9	British Romantic Literature: Topic: Gender and Genre with reference to Mary Shelley's Frankenstein	IV
	CC-10	British Literature: 19th Century,22-04-2024 Topic: Gender ideologies and Gender representations in 19th century literature	IV
	CC-14	Postcolonial Literature: Topic: Gender, Nation and Postcolonial writing	VI
	CC-11	Women's Writing, Topic: Author, authority and the women writer's anxiety, Women's writing and the role and position of women in pre-Independent India	V
	CC-14	Postcolonial Literature: Topic: Environmental Representation and Consciousness in the poetry of Mamang Dai	VI
Environmental Science	AECC-1	Environmental Studies	I
Geography –Program (Gen)	GEOP-DE1L-505	Sustainable Development	V
History–Hons.	CC-3	Histoty of india II: Social stratification , Gender marriages and property relations	II
	CC-11	History of Modern Europe I: Social classes and emerging gender relations	V
	CC-13	History if India VIII: Debates around Gender	VI
	DSE-3	History of North Bengal-I: Society, Position of women	VI
Microbiology –Hons.	DSE-7	Microbes in sustainabile agriculture and development	VI
	Paper-9	Environmental Microbiology	VI
Philosophy –Hons.	CC-14	Applied Ethics	VI
Political Science –Hons.	GE-402	Feminism: Theory and Practice	II
Sociology –Hons.	CC-7	Sociology of Gender	III
Zoology–Hons.	CC2	Paper: Ecology, Topic: Wildlife Conservation	I
	GE 1 Paper 1	Aquatic Biology; topic: Management of Aquatic Resources	V
Mass Communication And Journalism	DSC1 Paper 2	Media Ethics and Law	II

CC- 13	সাহিত্যতত্ত্ব	ক্রেডিট : ২	৫০ নম্বর
১. প্রাচীন ভারতীয় কাব্যতত্ত্ব			৪২ নম্বর
২. আরিস্টটলের কাব্যতত্ত্ব			
৩. রবীন্দ্রনাথের সাহিত্যতত্ত্ব (সাহিত্যের পথে--- রবীন্দ্রনাথ ঠাকুর)			
অভ্যন্তরীণ মূল্যায়ন			৮ নম্বর

CC- 14	সাহিত্য সমালোচনা ও সমালোচনা সাহিত্য	ক্রেডিট : ২	৫০ নম্বর
১. সাহিত্য সমালোচনার রীতি-পদ্ধতি---			৪২ নম্বর
লেখক জীবনী ভিত্তিক সমালোচনা পদ্ধতি, তুলনামূলক সমালোচনা পদ্ধতি, ঐতিহাসিক সমালোচনা পদ্ধতি, আন্তরবিদ্যক সমালোচনা পদ্ধতি, মনস্তাত্ত্বিক সমালোচনা পদ্ধতি,			
২. সাহিত্য সমালোচনার কয়েকটি মতবাদ---			
উত্তর আধুনিকতা, মার্কসবাদী সাহিত্যতত্ত্ব, নারীবাদী সাহিত্যতত্ত্ব, পাঠক প্রতিক্রিয়াবাদ, অবয়ববাদ, শৈলীবিজ্ঞান			
৩. বাংলা সমালোচনা সাহিত্য---			
রবীন্দ্রনাথ ঠাকুর, মোহিতলাল মজুমদার, সুধীন্দ্রনাথ দত্ত, বিষ্ণু দে, অজিত দত্ত, নীহাররঞ্জন রায়, শ্রীকুমার বন্দ্যোপাধ্যায়			
অভ্যন্তরীণ মূল্যায়ন			৮ নম্বর

DSE 3 : যে কোনো একটি বিষয় পড়তে হবে

DSE -3.1	উপন্যাস	ক্রেডিট : ২	৫০ নম্বর
১. উপন্যাসের তাত্ত্বিক আলোচনা - আখ্যানতত্ত্ব			৪২ নম্বর
২. উপন্যাসের দেশজ রীতির সন্ধানে			
৩. উপন্যাসের ঐতিহাসিক আলোচনা			
অভ্যন্তরীণ মূল্যায়ন			৮ নম্বর

DSE -3.2	ছোটগল্প	ক্রেডিট : ২	৫০ নম্বর
১. ছোটগল্পের তাত্ত্বিক আলোচনা			৪২ নম্বর
২. ছোটগল্পের নতুন রীতি, অনুগল্প, গল্প আন্দোলন			
২. ছোটগল্পের ঐতিহাসিক আলোচনা			
অভ্যন্তরীণ মূল্যায়ন			৮ নম্বর

DSE -3.3	মধ্যযুগের সাহিত্য	ক্রেডিট : ২	৫০ নম্বর
১. মধ্যযুগের সমাজ সাংস্কৃতিক প্রেক্ষাপট ও ধর্ম-দর্শন			৪২ নম্বর
২. অনুবাদ, আখ্যান ও জীবনী কাব্যের ধারা			
৩. মঙ্গল, পদাবলী ও মৌখিক সাহিত্যের ধারা			
অভ্যন্তরীণ মূল্যায়ন			৮ নম্বর

DSE -3.4	নাটক	ক্রেডিট : ২	৫০ নম্বর
১. নাটকের তাত্ত্বিক আলোচনা			৪২ নম্বর

Introduction: Definitions of Green Chemistry. Brief introduction of twelve principles of Green Chemistry, with examples, special emphasis on atom economy, reducing toxicity, green solvents, Green Chemistry and catalysis and alternative sources of energy, Green energy and sustainability

The following Real world Cases in Green Chemistry should be discussed:

- Surfactants for carbon dioxide – Replacing smog producing and ozone depleting solvents with CO₂ for precision cleaning and dry cleaning of garments.
- Designing of environmentally safe marine antifoulant.
- Rightfit pigment: Synthetic azo pigments to replace toxic organic and inorganic pigments.
- An efficient, green synthesis of a compostable and widely applicable plastic (poly lactic acid) made from corn.

Practicals

- Preparation and characterization of biodiesel from vegetable oil.
- Extraction of D-limonene from orange peel using liquid CO₂ prepared from dry ice.
- Mechano chemical solvent free synthesis of azomethine.
- Solvent free, microwave assisted one pot synthesis of phthalocyanine complex of copper(II).

Reference Books:

- Anastas, P.T. & Warner, J.K. *Green Chemistry- Theory and Practical*, Oxford University Press (1998).
- Matlack, A.S. *Introduction to Green Chemistry*, Marcel Dekker (2001).
- Cann, M.C. & Connely, M.E. *Real-World cases in Green Chemistry*, American Chemical Society, Washington (2000).
- Ryan, M.A. & Tinnesand, M. *Introduction to Green Chemistry*, American Chemical Society, Washington (2002).
- Sharma, R.K.; Sidhwani, I.T. & Chaudhari, M.K. *Green Chemistry Experiments: A monograph* I.K. International Publishing House Pvt Ltd. New Delhi, Bangalore.
- Lancaster, M. *Green Chemistry: An introductory text* RSC publishing, 2nd Edition.
- Sidhwani, I.T., Saini, G., Chowdhury, S., Garg, D., Malovika, Garg, N. Wealth from

Semester-V**Discipline Specific Elective (DSE-I) Course-I****Choose any one from DSE701 to DSE702 of Group-I**

Full Marks: 75

Credit: 6 (72 Lectures)

Paper-DSE 701 to DSE 702**Group-I:****DSE-701: Economics of Health and Education****Chapter-I: Role of Health and Education in Human Development:**

Importance of health and education, Health and education outcomes, its importance in poverty alleviation, health and education as joint investments for economic growth and development, Human capital approach.

Chapter-II: Education Sector in India – An Overview:

Role of education, Literacy rate, enrolment ratio, rate of school dropouts, Structure and role of private and public educational institutions, Class and gender gap in education.

Chapter-III: Inequality in Education:

Demand and supply of education, cost of education, education financing, teaching and outcomes, gender inequalities, child labour, education systems and development.

Chapter-IV: Health Sector in India- An Overview:

Basic health indices, maternal mortality, infant mortality rates and their outcomes, Notion and impact of health burden, Private and public health care sectors, Issues on availability and affordability of health care.

Chapter-V: Inequality in Health and Health Care:

Poverty inequality of health in international perspective, burden of diseases, government intervention, role of health care systems, equity in distribution of health care and health care financing.

Chapter-VI: Gender Issues in Human Development:

Gender Gap and gender equity, Issues on class, caste and gender, Cultural, social and economic hierarchies, Gender related empowerment index (GDI), Gender Empowerment

Measure (GEM) and its limitations, moving towards gender, institutions and development (GID), Social Institutions and Gender Index (SIGI).

Readings (CTB = Core Text Book):

Semester-V

Discipline Specific Core Course (DSC-12)

Development Economics

Full Marks: 75

Credit: 6 (72 Lectures)

Paper-DSC512

Course Outline:

Chapter-I: Conceptions of Development:

Definitions of Economic Development and Economic Growth, Distinguish between Economic Development and Economic Growth, Measurement of Economic Development and Economic Growth, Documenting the international variation in these Measures, Comparing development trajectories across nations and within them, Human Development Indices, Obstacles to Economic Development, Factors of Economic Growth.

Chapter-II: Poverty and Inequality:

Definitions of Poverty, Measures of Poverty, Causes of Poverty, Poverty alleviation Programmes, Growth versus Equality, Estimates of Inequalities of India, Causes of Inequalities in India, Policy measures, Connections between inequality and development, poverty measurement and characteristics of the poor.

Chapter-III: Theories of Economic Development:

The Marxian Theory, Rostow's Stages of Economic Growth, Nelson's Low-Level Equilibrium Trap and Leibenstein's Critical Minimum Effort Thesis, "Big Push" Theory, Balanced and Unbalanced Growth Theories, Dualistic Theories and Lewis Theory of Unlimited Supplies of Labour, Sen's Model of Disguised Unemployment, Rural-Urban Migration.

Chapter-IV: Environment and Sustainable Development:

Defining sustainability for renewable resources, A brief history of environmental change, Common-pool resources; environmental externalities and state regulation of the Environment, Economic activity and climate change.

Readings (CTB = Core Text Book):

- A. P. Thirlwal: *Growth and Development*, MacMillan Press Ltd., London, 1999. (CTB)
- Abhijit Banerjee, Roland Benabou and Dilip Mookerjee: *Understanding Poverty*, Oxford University Press, 2006.
- Agarwala and Singh (eds.): *The Economics of Underdevelopment*, OUP.
- Amartya Sen: *Development as Freedom*, OUP, 2000.
- Debraj, Ray: *Development Economics*, Oxford University Press, 2009. (CTB)

SEMESTER-IV

EDUCATION

Course Code	Course Title	Course wise Class (L+T+P)	Credit	Marks
EDU-H-DSC-T-8	Inclusive Education	Core(75L+15T)	6(5L+1T)	75
EDU-H-DSC-T-9	Educational Management and Administration	Core(75L+15T)	6(5L+1T)	75
EDU-H-DSC-T-10	History of Education in Post-Independence India	Core(75L+15T)	6(5L+1T)	75
EDU-H-GE-T-4 (any one to be chosen out of two)	A: Any Discipline other than Education	Generic Elective (75L+15T)	6(5L+1T)	75
	B: Any Discipline other than Education			
EDU-H-SEC-T-2 (Chose any)	B: Community Development	Skill enhancement (30L)	2 (2L)	75
	B: Lesson Planning			
Total	5 courses	Total	26	375

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SEMESTER-V

Course Code	Course Title	Course wise Class (L+T+P)	Credit	Marks
EDU-H- DSC -T-11	Contemporary issues in Education	Core (75L+15T)	6(5L+1T)	75
EDU-H- DSC -T-12	Educational Research	Core (75L+15T)	6(5L+1T)	75
EDU-H-DSE-T-1 (Chose any)	A: Value Education OR B: Population Education	Discipline specific (75L+15L)	2x6 (2x5L+2x1L)	75
EDU-H-DSE-T-2 (Chose any)	C: Distance Education OR D: Great Educator			75
Total	4 courses	Total	24	300

SEMESTER-VI

Course Code	Course Title	Course wise Class (L+T+P)	Credit	Marks
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EDU-H-DSC-T-13	Curriculum Studies	Core (75L+15T)	6(5L+1T)	75
EDU-H- DSC -T-14	Educational Technology	Core (75L+15T)	6(5L+1T)	75
EDU-H-DSE-T-3 (Chose any One)	A: Mental hygiene OR B: Comparative Education OR	Discipline	2x6	75



Discipline Specific Elective Course; Credit-6.(75 Lectures), Full Marks-75

Course objectives:

After end of this course learner will able to-

- Explain the meaning, nature, classify value and its reflection in Indian Constitution.
- Discuss the meaning, objectives and need of value Education
- Describe the role of value education through Curriculum, Co-curricular activities.
- Explain the meaning, advantages and disadvantage of Storytelling, Play-way method and Role plays.

UNIT-I: Meaning and nature of Value

- a) Value: Meaning and Nature
- b) Values enshrined in Indian constitution, Need for value education in India
- c) Classification of values
- d) Inculcation of National Value: Democracy, Socialism and Secularism.

UNIT-II: Value Education

- a) Value Education: concept and objective.
- b) Psychological basis of Value Education.
- c) Classification of value education(Social, Moral and Aesthetic)
- d) Values and Human Rights Education

UNIT-III: Value Education in School

- a) Value Education through Curriculum and Co-Curricular Activities.

- b) Role of teachers to facilitate development of values among the learners
- c) Factors affecting value preferences, culturally induced values, value systems

UNIT-IV: Strategies of value education

- a) Story - telling, Play-way Method, Role plays.
- b) Value clarifying model, Tools of value inculcation.

Suggested Books:

- 1) Diwahaar, R. R., & Aggarwal, M. (Ed). (1984). Peace education. New Delhi: Gandhi Marg.
- 2) Fountain, S. (1999) Peace Education in UNICEF, Working Paper, Education Section, Programme Division, UNICEF, New
- 3) Aggarwal, J.C. (2010). *Education for Values, Environment and Human Rights*. New Delhi: Shipra Publications
- 4) Chadha, S. C. (2008). Education value & value education. Meerut: R.Lall Books Depot
- 5) Chakraborty, Mohit (2003); *Value Education: Changing Perspectives*. New Delhi: Kanishka Publishers. Gupta, N.L. (2000). *Human Values in Education*. New Delhi: Concept Publishing Company.
- 6) Mahakud, L. & Behera, S.K. (2013) (Edit.) Value Education: Dimensions and Approaches, S.B. Enterprise, Kolkata.
- 7) Passi, B. K., & Singh, P. (1999). Value education. Agra: Agra Psychological Corporation.
- 8) Ruhela, S.P. (ed.) (1986). *Human Values and Education*. New Delhi: Sterling Publishers Pvt. Ltd.
- 9) Singh, Y. K. (2009). Value education. New Delhi: APH Publishing Corporation.
- 10) Sharma, Y.K. and Katoch, K.S. (2007) Education for Values, Environment and Human Rights, New Delhi: Deep & Deep Publications Pvt. Ltd.
- 11) Sharma, R. A. (2008). Human value of education. Meerut: R.Lall Books Depot.

3. Sudraka, *Mrcchakatika*, Trans. By M. M. Ramachandra Kale. New Delhi: Motilal Banarasidas, 1962.

UNIT II:

1. R.K. Narayan: *Swami and Friends*
 2. Anita Desai: *In Custody*
- One question to be answered from four questions asked serially from the four poets in Unit 3. [10x1=10]
 - One question to be answered from four questions asked serially from the four texts in Unit 4. [10x1=10]
 - Two short questions to be answered from eight questions asked serially and covering all the texts in Units 3 and 4 combined. [5x2=10]

UNIT III:

1. Henry Louis Vivian Derozio: "Freedom to the Slave", "The Orphan Girl"
2. Kamala Das: "An Introduction", "My Grandmother's House"
3. Nissim Ezekiel: "The Night of the Scorpion", "Enterprise"
4. Jayanta Mahapatra: "Dawn at Puri", "Hunger"

UNIT IV:

1. Mulk Raj Anand: "Two Lady Rams"
2. Salman Rushdie: "The Free Radio"
3. Rohinton Mistry: "Swimming Lesson"
4. Shashi Deshpande: "The Intrusion"

Suggested Topics and Background Prose Readings for Class Presentation:

- The Indian Epic Tradition: Themes and Conventions
- Classical Indian Drama: Theory and Practice
- Alankara and Rasa
- Themes and Contexts of the Indian English Novel
- The Aesthetics of Indian English Poetry
- Modernism in Indian English Literature

Readings:

1. Bharata, *Natyashastra*, 2nd ed. Vol. I, Trans. by Manomohan Ghosh, Calcutta: Granthalaya, 1967, Chap. 6: Sentiments, pp.100-18.

Core Course 9

British Romantic Literature

- Four questions to be answered from ten questions asked serially and covering all the poets from Units 1, 2 and 3 combined. [10x4=40]
- Two short questions to be answered from six questions asked serially and covering all the poets from Units 1, 2 and 3 combined. [5x2=10]

Unit I:

William Blake: Introduction to the *Songs of Innocence* – “The Lamb”, “The Chimney Sweeper”; *Songs of Experience* – “Tyger”, “The Chimney Sweeper”

Unit II:

1. William Wordsworth: “Tintern Abbey”, “Ode on the Intimations of Immortality”
2. Samuel Taylor Coleridge: “Kubla Khan”, “Dejection: An Ode”

Unit III:

1. Lord George Gordon Noel Byron: “Childe Harold”, Canto III, verses 36-45 (Lines 316 to 405); —On the Castle of Chillon
2. Percy Bysshe Shelley: “Ode to the West Wind”, “Ozymandias”, “Hymn to Intellectual Beauty”
3. John Keats: “Ode to a Nightingale”, “Ode to Autumn”, “On First Looking into Chapman’s Homer”

Unit IV:

- One question to be answered from two questions asked serially. [10x1=10]

Mary Shelley: *Frankenstein*

Suggested Topics and Background Prose Readings for Class Presentation:

- Literature and French Revolution
- Conception of Nature
- Reason and Romantic Imagination
- The Gothic

Readings:

1. Wordsworth, William. “Preface to Lyrical Ballads.” *Romantic Prose and Poetry*. Ed. by Harold Bloom and Lincol Trilling. New York: OUP, 1973. pp. 594-611.
2. Keats, John. “Letter to George and Thomas Keats, 21 December 1817”, and “Letter to Richard Woodhouse, 27 October, 1818.” *Romantic Prose and Poetry*. Ed. Harold Bloom and Lincol Trilling. New York: OUP, 1973. pp.766-68, 777-8.
3. Rousseau, Jean-Jacques. *Preface to Emile or Education*. Trans. By Allan Bloom. Harmondsworth: Penguin, 1991.
4. Coleridge, Samuel Taylor. *Biographia Literaria*. Ed. George Watson. London: Everyman, 1993. Chap. XIII, pp. 161-66.

Core Course 10

British Literature: 19th Century

- Two questions to be answered from three questions set with alternatives from the three texts in Unit 1. [10x2=20]
- Two questions to be answered from three questions set with alternatives from the three poets in Unit 2. [10x2=20]
- Four short questions to be answered from ten questions asked serially and covering all the texts from Units 1 and 2 combined. [5x4=20]

Unit I:

1. Jane Austen: *Pride and Prejudice*
2. Charlotte Bronte: *Jane Eyre*
3. Charles Dickens: *A Tale of Two Cities*

Unit II:

1. Alfred Tennyson: "The Lady of Shalott", "Ulysses"
2. Robert Browning: "My Last Duchess", "The Last Ride Together"
3. Christina Rossetti: "The Goblin Market"

Suggested Topics and Background Prose Readings for Class Presentation:

- Utilitarianism
- The 19th Century Novel
- Marriage and Sexuality
- The Writer and Society
- Faith and Doubt
- The Dramatic Monologue

Readings:

1. Karl Marx and Friedrich Engels. "Mode of Production: The Basis of Social Life, The Social Nature of Consciousness, and Classes and Ideology." *A Reader in Marxist Philosophy*. Ed. Howard Selsam and Harry Martel. New York: International Publishers, 1963. pp. 186-8, 190-1, 199-201.
2. Darwin, Charles. "Natural Selection and Sexual Selection." *The Descent of Man in The Norton Anthology of English Literature* 8th Edn, Vol. 2. Ed. Stephen Greenblatt. New York: Norton, 2006. pp. 1545-9.
3. Mill, John Stuart. "The Subjection of Women." *Norton Anthology of English Literature* 8th Edn., Vol. 2. Ed. by Stephen Greenblatt. New York: Norton, 2006. Chap.1, pp. 1061-9.

2. Sylvia Plath: "Daddy", "Lady Lazarus"
3. Eunice De Souza: "Advice to Women", "Bequest"

Unit II:

Alice Walker: *The Color Purple*

Unit III:

- One question to be answered from three questions set with alternatives from the three texts. [10x1=10]
1. Charlotte Perkins Gilman: "The Yellow Wallpaper"
 2. Katherine Mansfield: "Bliss"
 3. Mahasweta Devi: "Draupadi", tr. Gayatri Chakravorty Spivak (Calcutta: Seagull, 2002)

Unit IV:

- One question to be answered from three questions set with alternatives from the three texts. [10x1=10]
1. Mary Wollstonecraft: *A Vindication of the Rights of Woman* (New York: Norton, 1988) Chap. 1, pp. 11-19; Chap. 2, pp. 19-38
 2. Ramabai Ranade: 'A Testimony of our Inexhaustible Treasures' in *Pandita Ramabai Through her Own Words: Selected Works*, tr. Meera Kosambi (New Delhi: OUP, 2000) pp. 295-324
 3. Rasasundari Debi: Excerpts from Amar Jibon in *Women's Writing in India*, Vol. 1, eds. Susie Tharu and K. Lalita (New Delhi: OUP, 1989), pp. 192-202

Suggested Topics and Background Prose Readings for Class Presentation:

- The confessional mode in women's writing
- Sexual Politics
- Age, Caste and Gender
- Social Reform and Women's Rights

Readings:

1. Woolf, Virginia. *A Room of One's Own*. New York: Harcourt, 1957. Chaps. 1 and 6.
2. de Beauvoir, Simone. Introduction. *The Second Sex*. Trans. by Constance Borde and Shiela Malovsky-Chevallier. London: Vintage, 2010. pp. 3-18.

Core Course 14

Postcolonial Literatures

- One question to be answered from two questions set with alternatives from the two texts in unit 1. [10x1=10]
- One question to be answered from three questions set with alternatives from the three texts in unit 2. [10x1=10]
- Two short questions to be answered from six questions asked serially and covering all the writers from Units 1 and 2 combined. [5x2=10]

Unit I:

1. Chinua Achebe: *Things Fall Apart*
2. Gabriel Garcia Marquez: *Chronicle of a Death Foretold*

Unit II:

1. Bessie Head: "The Collector of Treasures"
2. Ama Ata Aidoo: "The Girl who can"
3. Grace Emily Ogot: "The Green Leaves"

Unit III:

- Two questions to be answered from four questions set with alternatives from the four poets. [10x2=20]
- Two short questions to be answered from six questions asked serially and covering all the poets. [5x2=10]

1. Pablo Neruda: "Tonight I can Write", "The Way Spain was"
2. Derek Walcott: "A Far Cry from Africa"; "Names"

3. David Malouf: "Revolving Days", "Wild Lemons"
4. Mamang Dai: "Small Towns and the River"; "The Voice of the Mountain"

Suggested Topics and Background Prose Readings for Class Presentation:

- Decolonization, Globalization and Literature
- Literature and Identity Politics
- Writing for the New World Audience
- Region, Race and Gender
- Postcolonial Literature and Questions of Form

Syllabus for Environmental Studies (AECC-1) under CBCS

B.Sc, BA, B.Com., BBA/BCA Honours Program and Program

ENVS (AECC-1) Course- 1 (Credit – 2)

Theory (credit – 1.6)

Full Marks: 80

2018

Unit 1: Introduction to environmental studies

- Multidisciplinary nature of environmental studies
- Scope and importance; Concept of sustainability and sustainable development.

1 lecture

Unit 2: Ecosystems

- What is an ecosystem?
Structure and function of ecosystem;
Energy flow in an ecosystem: food chains, food webs and ecological succession.
Case studies of the following ecosystems:
 - a) Forest ecosystem
 - b) Grassland ecosystem
 - c) Desert ecosystem
 - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

4 lectures

Unit 3: Natural Resources: Renewable and Non – renewable Resources

- Land resources and land-use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water: Use and over – exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state), Dams – benefits and problems.
- Food resources: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, waterlogging, salinity.
- Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies

4 lectures

Unit 4: Biodiversity and Conservation

- Levels of biological diversity: genetic, species and ecosystem diversity; Bio-geographic zones of India; Biodiversity patterns and global biodiversity hotspots.
- India as a mega-biodiversity nation; Endangered and endemic species of India, threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions.
- Conservation of biodiversity: In – situ and Ex – situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

4 lectures

Unit 5: Environmental Pollution

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.
- Pollution case studies

4 lectures

Unit 6: Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

3 lectures

Unit7: Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare. Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management: floods, earthquake, cyclones and landslides.
- Water conservation, rain water harvesting, watershed management.
- Wasteland reclamation.
- Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

4 lectures

GEOGRAPHY PROGRAMME COURSE
DISCIPLINE SPECIFIC ELECTIVE

(Students will choose either Disaster Management or Sustainable Management)

COURSECODE: GEOP-DE1L-505

Credits: 04

DISASTER MANAGEMENT

1. Disasters: definition and concepts: hazards, disasters; risk and vulnerability; classification;
2. Disasters in India: (a) flood: causes, impact, distribution and mapping; landslide: causes, impact, distribution and mapping; drought: causes, impact, distribution and mapping;
3. Disasters in India: (b) earthquake and tsunami: causes, impact, distribution and mapping; cyclone: causes, impact, distribution and mapping;
4. Response and mitigation to disasters: mitigation and preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management.

PRACTICAL

Credits: 02

Project report based on any one field based case study among the following disasters:

- a) Flood
- b) Landslide
- c) Human induced disaster: fire and industrial accidents

Practical Record

1. Students will prepare a report based on primary and secondary data collected during fieldwork.
2. The word count of the report should be 5000 to 6000 words, excluding figures, tables, photographs, maps, references and appendices.
3. One typed copy of the report on A4 size paper should be submitted in soft/hard binding.

Reading List

1. Government of India. (1997) *Vulnerability Atlas of India*. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) *Vulnerable India: A Geographical Study of Disasters*, Sage Publication, New Delhi.
3. Modh, S. (2010) *Managing Natural Disaster: Hydrological, Marine and Geological Disasters*, Macmillan, Delhi.
4. Singh, R.B. (2005) *Risk Assessment and Vulnerability Analysis*, IGNOU, New Delhi. Chapter 1, 2 and 3 Singh, R. B. (ed.), (2006) *Natural Hazards and Disaster Management: Vulnerability and Mitigation*, Rawat Publications, New Delhi.
5. Sinha, A. (2001). *Disaster Management: Lessons Drawn and Strategies for Future*, New United Press, New Delhi.
6. Stoltman, J.P. et al. (2004) *International Perspectives on Natural Disasters*, Kluwer Academic Publications.
7. Singh Jagbir (2007) —*Disaster Management Future Challenges and Opportunities*¹, 2007.Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

Credits: 04

SUSTAINABLE DEVELOPMENT

1. Sustainable Development: definition, components, limitations and historical background;
2. The Millennium Development Goals: national strategies and international experiences;
3. Inclusive Development: education, health; climate change: the role of higher education in sustainable development; poverty and disease; the challenges of universal health coverage; policies and global cooperation for climate change;
4. Sustainable Development policies and programmes: The proposal for SDGs at Rio+20; Illustrative SDGs; goal-based development; financing for sustainable development; principles of good governance; National Environmental Policy, CDM.

PRACTICAL

Credits: 02

Project report based on any one field-based case study among the following:

- a) Health issues in any local village
- b) Education status in any local village

Practical Record

1. *Students will prepare a report based on primary and secondary data collected during fieldwork.*
2. *The word count of the report should be about 5000 to 6000 words, excluding figures, tables, photographs, maps, references and appendices.*
3. *One typed copy of the report on A4 size paper should be submitted in soft binding*

Reading List

1. Agyeman, Julian, Robert D. Bullard and Bob Evans (Eds.) (2003) *Just Sustainability: Development in an Unequal World*. London: Earth scan. (Introduction and conclusion.)
2. Ayers, Jessica and David Dodman (2010) —Climate change adaptation and development I: the state of the debate. *Progress in Development Studies* 10 (2):161-168.
3. Baker, Susan (2006) *Sustainable Development*. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, —The concept of sustainable development)
4. Brosius, Peter (1997) —Endangered forest, endangered people: Environmentalist representations of indigenous knowledge, *Human Ecology* 25:47-69.
5. Lohman, Larry (2003) —Re-imagining the population debate. *Corner House Briefing* 28.
6. Martínez-Alier, Joan et al (2010) —Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. *Ecological Economics* 69:1741-1747.
7. Merchant, Carolyn (Ed.) (1994) *Ecology*. Atlantic Highlands, N.J: Humanities Press. (Introduction, pp125.)
8. Osorio, Leonardo et al (2005) —Debates on sustainable development: towards a holistic view of reality. *Environment, Development and Sustainability* 7:501-518.
9. Robbins, Paul (2004) *Political Ecology: A Critical Introduction*. Blackwell Publishing.
10. Singh, R.B. (Eds.) (2001) *Urban Sustainability in the Context of Global Change*, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi.

PAPER III: HISTORY OF INDIA II**I. Economy and Society (circa 300 BCE to circa CE 300):**

- [a] Expansion of agrarian economy: production relations.
- [b] Urban growth: north India, central India and the Deccan; craft Production: trade and trade routes; coinage.
- [c] **Social stratification**: class, Varna, jati, untouchability; **gender, marriage and property relations**

II. Changing political formations (circa 300 BCE to circa CE 300):

- [a] The Mauryan Empire
- [b] Post-Mauryan Polities with special reference to the Kushanas and the Satavahanas; Gana Sanghas.

III. Towards early medieval India [circa CE fourth century to CE 750]:

- [a] Agrarian expansion: land grants, changing production relations; graded Land rights and peasantry.
- [b] The problem of urban decline: patterns of trade, currency, and urban Settlements.
- [c] Varna, proliferation of jatis: changing norms of marriage and property.
- [d] The nature of polities: the Gupta empire and its contemporaries: post- Gupta polities -Pallavas, Chalukyas, and Vardhanas,

IV. Religion, philosophy and society (circa 300 BCE- CE 750):

- (a) Consolidation of the brahmanical tradition: dharma, Varnashram, Purusharthas, samskaras.
- (b) Theistic cults (from circa second century BC): Mahayana; the Puranic tradition
- (c) The beginnings of Tantricism

V. Cultural developments (circa 300 BCE - CE 750):

- [a] A brief survey of Sanskrit, Pali, Prakrit and Tamil literature. Scientific and technical treatises
- [b] Art and architecture & forms and patronage; Mauryan, post-Mauryan, Gupta, post-Gupta

PAPER XI: HISTORY OF MODERN EUROPE- I (C. 1780-1939)

I. The French Revolution and its European repercussions:

- [a] Crisis of Ancient Regime.
- [b] Intellectual currents.
- [c] Social classes and emerging gender relations.
- [d] Phases of the French Revolution 1789 - 99.
- [e] Art and Culture of French Revolution.
- [f] Napoleonic consolidation - reform and empire.

II. Restoration and Revolution: c. 1815 - 1848:

- [a] Forces of conservatism & restoration of old hierarchies.
- [b] Social, Political and intellectual currents.
- [c] Revolutionary and Radical movements, 1830 - 1848.

III Capitalist Industrialization and Social and Economic Transformation (Late 18th century to AD 1914)

- [a] Process of capitalist development in industry and agriculture: case Studies of Britain, France, the German States and Russia.
- [b] Evolution and Differentiation of social classes: Bourgeoisie, Proletariat, land owning classes and peasantry.
- [c] Changing trends in demography and urban patterns.
- [d] Family, gender and process of industrialization.

IV. Varieties of Nationalism and the Remaking of States in the 19th and 20th Centuries.

- [a] Intellectual currents, popular movements and the formation of National identities in Germany, Italy, Ireland and the Balkans.
- [b] Specificities of economic development, political and administrative Reorganization - Italy; Germany.

PAPER XIII: HISTORY OF INDIA VIII (c. 1857 - 1950)

I. Cultures changes and Social and Religious Reform Movements:

- [a] The advent of printing and its implications.
- [b] Reform and Revival: Brahma Samaj, Prarthna Samaj, and Ramakrishna and Vivekananda, Arya Samaj, Wahabi, Deoband, Aligarh and Singh Sabha Movements.
- [c] Debates around gender.
- [d] Making of religious and linguistic identities.
- [e] Caste: sanskritising and anti Brahminical trends.

II. Nationalism: Trends up to 1919:

- [a] Political ideology and organizations, formation of INC.
- [b] Moderates and extremists.
- [c] Swedish movement.
- [d] Revolutionaries .

III. Gandhian nationalism after 1919: Ideas and Movements:

- [a] Mahatma Gandhi: his Perspectives and Methods.
- [b] (i) Impact of the First World War;
(ii) Rowlett Satyagraha and Jallianwala Bagh;
(iii) Non- Cooperative and Civil Disobedience;
(iv) Provincial Autonomy, Quit India and INA.
- [c] Left wing movements.
- [d] Princely India: States people movements.
- [e] Nationalism and Culture: literature and art.

IV. Nationalism and Social Groups: Interfaces:

- [a] Landlords, Professionals and Middle Classes.
- [b] Peasants.
- [c] Tribal.
- [d] Labour.
- [e] Dalits.

PAPER: VI
HISTORY OF NORTH BENGAL - I

Physical and Historical Geography:

Physical Aspects, North Bengal in Holy Writ, the Historic Period: Gauda, Pundravardhana and Varendri, Pundravardhana-Bhukti, Cities in Ancient North Bengal.

The Legendary Period, Early History from 326 B.C. to 320 A.D.

Rise of Gauda (320-650 A.D.): North Bengal under the Imperial Guptas, Rise of Gauda - Sasanka.

Political Disintegration after Sasanka: Kingdom of Gauda:

The Palas: Origin and Early History of the Palas, The Pala Empire, Disintegration and Temporary Revival, The End of the Pala Empire, The Senas.

Religion: Religious Thought and Practice – Brahmanical, Jainism and Buddhism
Iconography: Vaisnava, Saiva, Sakti, Surya, Miscellaneous, Jaina and Buddhist images.

Architecture and Sculpture: Stupa, Monastic and temple Architecture.

Sculpture: Introduction, Kushana Affiliation, The Gupta Idiom, Paharpur, Pala and Sena Sculpture.

Society Ethnological Background, Aryanisation of North Bengal, Socio-Religious rites, ceremonies and Festivals, General life of the People, **Position of**

Women Food and Drink, Dress and Ornaments, Games and Pastimes, Music and Dance, Conveyances, Luxury and immortality.

Hyas Shahi Dynasty, Dinajpur Raj; Raja Ganesha, Hindu Kings of Bengal, Hussain Shahi Dynasty, Gour-Pandua and Adina, The Mughals in north Bengal

Khenn Dyansty, Kamata-Koch Dynasty up to 1773.

SUGGESTED READINGS:

R. C., Majumder (Ed.) , The Delhi Sultanate, Bharatiya Vidya Bhavan
R.C. Majumdar (Ed.), The History of Bengal, Dacca, 1943

J.N. Sarkar, History of Bengal, Vol. 3.

Ray, Niharrajan, Bangalir Itihas, Adiparva.

MICROBIOLOGY

DSE Paper -7: MICROBES IN SUSTAINABLE AGRICULTURE AND DEVELOPMENT

(THEORY)

SEMESTER -VI

TOTAL HOURS: 60

CREDITS: 4

Unit 1 Soil Microbiology

No of Hours: 8

Soil as Microbial Habitat, Soil profile and properties, Soil formation, Diversity and distribution of microorganisms in soil

Unit 2 Mineralization of Organic & Inorganic Matter in Soil

No of Hours: 8

Mineralization of cellulose, hemicelluloses, lignocelluloses, lignin and humus, phosphate, nitrate, silica, potassium

Unit 3 Microbial Activity in Soil and Green House Gases

No of Hours: 5

Carbon dioxide, methane, nitrous oxide, nitric oxide - production and control

Unit 4 Microbial Control of Soil Borne Plant Pathogens

No of Hours: 8

Biocontrol mechanisms and ways, Microorganisms used as biocontrol agents against Microbial plant

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B.Sc. (HONOURS) MICROBIOLOGY (CBCS STRUCTURE)

pathogens, Insects, Weeds

Unit 5 Biofertilization, Phytostimulation, Bioinsecticides

No of Hours: 15

Plant growth promoting bacteria, biofertilizers - symbiotic (*Bradyrhizobium*, *Rhizobium*, *Frankia*),

Non Symbiotic (*Azospirillum*, *Azotobacter*, Mycorrhizae, MHBs, Phosphate solubilizers, algae),

Novel combination of microbes as biofertilizers, PGPRs

Unit 6 Secondary Agriculture Biotechnology

No of Hours: 10

Biotech feed, Silage, Biomanure, biogas, biofuels - advantages and processing parameters

Unit 7 GM crops

No of Hours: 6

Advantages, social and environmental aspects, Bt crops, golden rice, transgenic animals

DSE Paper-7.1: MICROBES IN SUSTAINABLE AGRICULTURE AND DEVELOPMENT (PRACTICAL)

K. Maloy SR, Cronan JE and Friefelder D(2004) Microbial Genetics 2nd EDITION., Jones and Barlett Publishers

Paper -9: ENVIRONMENTAL MICROBIOLOGY (THEORY)

SEMESTER -IV

TOTAL HOURS: 60 CREDITS: 4

Unit 1 Microorganisms and their Habitats

No. of Hours: 14

Structure and function of ecosystems Terrestrial Environment: Soil profile and soil microflora
Aquatic Environment: Microflora of fresh water and marine habitats Atmosphere: Aeromicroflora and dispersal of microbes ,Animal Environment: Microbes in/on human body (Microbiomics) & animal (ruminants) body. Extreme Habitats: Extremophiles: Microbes thriving at high & low temperatures, pH, high hydrostatic & osmotic pressures, salinity, & low nutrient levels.

Unit 2 Microbial Interactions

No. of Hours: 12

Microbe interactions: Mutualism, synergism, commensalism, competition, amensalism, parasitism, Predation Microbe-Plant interaction: Symbiotic and non symbiotic interactions Microbe-animal interaction: Microbes in ruminants, nematophagus fungi and symbiotic luminescent Bacteria

Unit 3 Biogeochemical Cycling

No. of Hours: 12

Carbon cycle: Microbial degradation of cellulose, hemicelluloses, lignin and chitin Nitrogen cycle: Nitrogen fixation, ammonification, nitrification, denitrification and nitrate reduction Phosphorus cycle: Phosphate immobilization and solubilisation Sulphur cycle: Microbes involved in sulphur cycle

Unit 4 Waste Management

No. of Hours: 12

Solid Waste management: Sources and types of solid waste, Methods of solid waste disposal (composting and sanitary landfill)
Liquid waste management: Composition and strength of sewage (BOD and COD), Primary, secondary (oxidation ponds, trickling filter, activated sludge process and septic tank) and tertiary sewage treatment

Unit 5 Microbial Bioremediation

No. of Hours: 5

Principles and degradation of common pesticides, organic (hydrocarbons, oil spills) and inorganic (metals) matter, biosurfactants

Unit 6 Water Potability

No. of Hours: 5

Treatment and safety of drinking (potable) water, methods to detect potability of water samples: (a) standard qualitative procedure: presumptive test/MPN test, confirmed and completed tests for faecalcoliforms (b) Membrane filter technique and (c) Presence/absence tests

CHOICE BASED CREDIT SYSTEM

DEPARTMENT OF PHILOSOPHY

B.A. (HONS.) (CORE COURSE)

C 14 APPLIED ETHICS

UNIT I

1. Introduction to Applied Ethics
2. Environmental Ethics – Ecology, man – nature relationship, the environment and the human community, future generation.

UNIT II

1. Medical Ethics – Euthanasia, Suicide, Abortion, Principles of Medical Ethics, Informed Consent, Confidentiality.
2. Human Rights, Discrimination on the basis of sex, race, caste, religion.

UNIT-III

1. Feminism – Introduction, historical background, nature of feminist movement.
2. Media Ethics

Recommended Readings:

- Practical Ethics, Peter Singer
- A Companion to Ethics, Peter Singer
- Applied Ethics, Peter Singer, ed.
- The Blackwell Companion to Philosophy, Nicolas Bunnin & E.P.Tsui – James
- Patient-Physician Relationship Edited by Ratna Dutta Sharma and Shashinungla, Decent Books, New Delhi, 2007
- Quagmires and Quandaries : Exploring Journalism Ethics, Ian Richards
- Journalistic Ethics: Moral Responsibility in the media, Dale Jacquette
- Byaboharik Nitidorshon, Benulal Dhar
- Byaboharik o Tattvik Nitividya, Samarendrenath Bhattacharjee
- Kathay o Karne Ethics, Somnath Chakraborty
- Bharatiya Nitividya (4th edn.), Dipak Kumar Bagchi

1. **Approaches to understanding Patriarchy**
 - (a) **Feminist theorising of the sex/gender distinction. Biologism versus social constructivism**
 - (b) **Understanding Patriarchy and Feminism**
 - (c) **Liberal, Socialist, Marxist, Radical feminism, New Feminist Schools/Traditions**
2. **History of Feminism**
 - (a) **Origins of Feminism in the West: France, Britain and United States of America**
 - (b) **Feminism in the Socialist Countries: China, Cuba and erstwhile USSR**
 - (c) **Feminist issues and women's participation in anti-colonial and national liberation movements with special focus on India**
3. **The Indian Experience**
 - (a) **Traditional Historiography and Feminist critiques. Social Reforms Movement and position of women in India. History of Women's struggle in India**
 - (b) **Family in contemporary India - patrilineal and matrilineal practices. Gender Relations in the Family. Patterns of Consumption: Intra Household Divisions, entitlements and bargaining. Property Rights**
 - (c) **Understanding Woman's Work and Labour – Sexual Division of Labour, Productive and Reproductive labour, Visible - invisible work – Unpaid (reproductive and care), Underpaid and Paid work, - Methods of computing women's work , Female headed Households**

SOCIOLOGY HONOURS UNDER CBCS
UNIVERSITY OF NORTH BENGAL

CORE COURSE- 07
SOCIOLOGY OF GENDER

Full Marks: 75

[Credits: 6]
[Lecture: 75]
[Tutorial : 15]

Course Objectives:

This course introduces gender as a critical sociological lens of enquiry in relation to various social fields It also interrogates the categories of gender, sex, sexuality, gender role, inequalities, theories of feminism and initiatives taken for development.

Course Content:

UNIT -1: Gender as Social Construct:

- Sex and Gender
- Gender Stereotyping, and Socialization
- Production: Masculinity and Femininity.

UNIT-2: Gender Differences and Inequalities:

- Gender Stratification and Inequality
- Class, Caste, Family and Work

UNIT-3: Gender, Power and Resistance:

- Patriarchy
- Power and subordination
- Resistance and Feminist Movement

UNIT-4: Theories of Feminism:

- Origin and Growth of Feminists Theories
- Liberal, Radical, Socialists, Marxists, and Eco - Feminism

UNIT-5: Empowerment of Women:

- Perspectives and Dimensions
- World Conference of Women
- Empowerment of Women – Legislative Measures.

References

1. S. Jackson and S. Scott (eds.) 2002 *Gender: A Sociological Reader*, London: Routledge. Introduction, (pp. 1-26).
2. Liz Stanley. 2002. "Should Sex Really be Gender or Gender Reallybe Sex" in S. Jackson and S. Scott (eds.) *Gender: A Sociological Reader*, London: Rutledge (pp. 31-41)
3. Strathern, Marilyn. 1987. "An Awkward Relationship: The Case of Feminism and Anthropology." *Signs* 12(2):276-292.
4. Sherry Ortner. 1974. "Is male to female as nature is to culture?" M.Z. Rosaldo and L. Lamphere (eds.) *Women, culture and society*. Stanford: Stanford University Press (pp.67- 87).
5. Rubin, Gayle. 1984. "Thinking Sex: Notes for a Radical Theory ofthe Politics of Sexuality" in Carole Vance, ed., *Pleasure and anger*.London: Routledge (pp 143-179).
6. Newton, Esther. 2000. "Of Yams, Grinders and Gays: The Anthropology of Homosexuality" in *Margaret Mead Made Me Gay: Personal Essays, Public Ideas*. London: Duke University Press (pp 229- 237).

3. CC2 –Ecology (THEORY)

Ecology	
	4 Credits
	Class
Unit 1: Introduction to Ecology	4
History of ecology, Autecology and synecology, Levels of organization, Laws of limiting factors, Study of Physical factors (light and temperature), The Biosphere - Introduction.	
Unit 2: Population	20
Unitary and Modular populations Unique and group attributes of population: Demographic factors, life tables, fecundity tables (Definitions), survivorship curves, dispersal and dispersion. Exponential and logistic growth, equation and patterns, r and k strategies Population regulation - density-dependent and independent factors Population Interactions, Gause's Principle with laboratory and field examples, Lotka-Volterra equation for competition.	
Unit 3: Community	11
Community characteristics: species diversity, abundance, , dominance, richness, Vertical stratification, Ecotone and edge effect. Ecological succession with one example	
Unit 4: Ecosystem	10
Types of ecosystem with an example in detail, Food chain: Detritus and grazing food chains, Linear and Y-shaped food chains, Food web, Energy flow through the ecosystem, Ecological pyramids and Ecological efficiencies Nutrient and biogeochemical cycle with an example of Nitrogen cycle Human modified ecosystem	
Unit 5: Applied Ecology	5
Wildlife Conservation (in-situ and ex-situ conservation). Management strategies for tiger conservation; Wild life protection act (1972)	

9 . GE 1 PAPER 1 (Group-C)-Aquatic Biology (THEORY)

Aquatic Biology		
	4 Credits	Class
Unit 1: Aquatic Biomes		10
Brief introduction to the aquatic biomes: Freshwater ecosystem (lakes, wetlands, streams and rivers), estuaries, intertidal zones, oceanic pelagic zone, marine benthic zone and coral reefs.		
Unit 2: Freshwater Biology		20
Lakes: Lake as an Ecosystem, Physico-chemical Characteristics: Light, Temperature, Thermal stratification, Dissolved Solids, Carbonate, Bicarbonates, Phosphates and Nitrates, Turbidity, dissolved gases (Oxygen, Carbon dioxide). Nutrient Cycles in Lakes (Nitrogen, Sulphur and Phosphorous). Streams: Physico-chemical environment, Adaptation of hill- stream fishes.		
Unit 3: Marine Biology		10
Salinity and density of Sea water, Continental shelf, Adaptations of deep sea organisms, Coral reefs		
Unit 4: Management of Aquatic Resources		10
Causes of pollution: Agricultural, Industrial, Sewage, Thermal and Oil spills, Eutrophication, Management and conservation (legislations), Sewage treatment Water quality assessment- BOD and COD.		
Reference Books		
<ul style="list-style-type: none"> ▶ Anathakrishnan : Bioresources Ecology 3rd Edition ▶ Goldman : Limnology, 2nd Edition ▶ Odum and Barrett : Fundamentals of Ecology, 5th Edition ▶ Pawlowski: Physicochemical Methods for Water and Wastewater Treatment, 1st Edition ▶ Wetzel : Limnology, 3rd edition ▶ Trivedi and Goyal : Chemical and biological methods for water pollution studies ▶ Welch : Limnology Vols. I-II 		

9. Carole Flemming and Emma Hemmingway. *An Introduction to Journalism*; Vistaar Publications, 2006.
10. Richard Keeble. *The Newspaper's Handbook*; Routledge Publication, 2006.

MASS COMMUNICATION AND JOURNALISM

SEMESTER II

DSCI Paper 2 Media Ethics and Law

Course contents:

Unit-I Ethical Framework and Media practice

Freedom of expression (Article 19(1)(a) and Article 19(1)2)
Freedom of expression and defamation- Libel and slander
Issues of privacy and Surveillance in Society
Right to Information
Idea of Fair Trial/Trial by Media
Parliamentary Privilege
Contempt of Court
Intellectual Property Rights
Media ethics and cultural dependence
Student Presentations-
Photocopied material for Study Packs in India; Aaron Swartz.
Attack on Freedom of artists and authors

Unit 2 Media Technology and Ethical Parameters

Live reporting and ethics
Legality and Ethicality of Sting Operations, Phone Tapping etc
Ethical issues in Social media (IT Act 2000, Sec 66 A and the verdict of The supreme court) Discussion of Important cases-eg- Operation Westend
Some Related laws- Relevant sections of Broadcast Bill, NBA guidelines
Student Presentations-
Tehelka's Westend .
School Teacher Uma Khurana case

Unit 3- Representation and ethics

Advertisement and Women Pornography
Related Laws and case studies- Indecent representation of Women (Prohibition) Act, 1986 and rules 1987, Protection of Women against Sexual Harassment Bill, 2007, Sec 67 of IT Act 2000 and 292 IPC etc
Objectionable Advertisements, Drugs and Magic Remedies

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Student Presentations-
Students will submit on above mentioned topics.

Unit 4- Media and Regulation

Regulatory bodies, Codes and Ethical – ASCI, TRAI, RNI
Guidelines Self Regulation
Media Content- Debates on morality and
Accountability: Taste, Culture and Taboo
Censorship and media debates

Unit 5- Media and Social Responsibility

Economic Pressures
Media reportage of marginalized sections- children, dalits, tribals, Gender
Media coverage of violence and related laws - inflammatory writing (IPC 353),
Sedition-incitement to violence, hate Speech.
Relevant Case Studies – Muzaffarpur Riots, Attack on civil liberties of individuals
and social activists

Internal Assignment: