

1.3.1 Courses Relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Department of Chemistry

Course Code: BSCHCEMDSE501

Course Name: Green Chemistry

Syllabus

Unit - I: Introduction to Green Chemistry

What is Green Chemistry? Need for Green Chemistry. Goals of Green Chemistry. Limitations/Obstacles in the pursuit of the goals of Green Chemistry.

Unit – II: Principles of Green Chemistry and Designing a Chemical synthesis

Twelve principles of Green Chemistry with their explanations and examples and special emphasis on the following: Designing a Green Synthesis using these principles; Prevention of Waste/ byproducts; maximum incorporation of the materials used in the process into the final products, Atom Economy, calculation of atom economy of the rearrangement, addition, substitution and elimination reactions. Prevention/minimization of hazardous/toxic products reducing toxicity. risk = (function) hazard exposure; waste or pollution prevention hierarchy. Green solvents– supercritical fluids, water as a solvent for organic reactions, ionic liquids, fluorous biphasic solvent, PEG, solventless processes, immobilized solvents and how to compare greenness of solvents. Energy requirements for reactions – alternative sources of energy: use of microwaves and ultrasonic energy. Selection of starting materials; avoidance of unnecessary derivatization – careful use of blocking/protecting groups. Use of catalytic reagents (wherever possible) in preference to stoichiometric reagents; catalysis and green chemistry, comparison of heterogeneous and homogeneous catalysis, biocatalysis, asymmetric catalysis and photocatalysis.

Unit – III: Examples of Green Synthesis/ Reactions and some real world cases

1. Green Synthesis of the following compounds: adipic acid, catechol, disodium iminodiacetate (alternative to Strecker synthesis)
2. Microwave assisted reactions in water: Hofmann Elimination, methyl benzoate to benzoic acid, oxidation of toluene and alcohols; microwave assisted reactions in organic solvents Diels-Alder reaction and Decarboxylation reaction

3. Ultrasound assisted reactions: sonochemical Simmons-Smith Reaction (Ultrasonic alternative to Iodine)

Course Code: BSCHCEMDSE502

Course Name: Environmental Chemistry

Syllabus

Unit-I: The Atmosphere

Composition and structure of the atmosphere: troposphere, stratosphere, mesosphere and thermosphere, ozone layer and its role; major air pollutants : CO, SO₂, NO and particulate matters –their origins and harmful effects, problems of ozone layer depletion, green house effect, acid rain and photochemical smog, air pollution episodes, air quality standard, air pollution control measures: cyclone collector, electrostatic precipitator, catalytic converter, detection, collection and principles of estimation of CO, NO_x, SO₂, H₂S and SPM in air samples.

Unit-II: Aspects of Environmental Inorganic Chemistry

Atmospheric stability and temperature inversion, greenhouse effect, global warming and cooling, ozone depletion and involved chemical reactions, the disaster of endosulfan in kasargod in kerala, smog formation, acid rain, eutrophication in natural water bodies, Minamata disease, Bhopal disaster, hazard of nuclear disaster (Chernobyl and Fukushima Daiichi), nuclear disaster management.

Unit-III: The Hydrosphere

Water pollutants: action of soaps and detergents, phosphates, industrial effluents, agricultural runoff, domestic wastes; thermal pollution radioactive pollution and their effects on animal and plant life, water pollution episodes, waste water treatment: chemical treatment and microbial treatment; water quality standards: DO, BOD, COD, TDS and hardness parameters, desalination of sea water: reverse osmosis, electro dialysis, detection and estimation of As, Hg, Cd, Pb, Cr, NH₄ and F , NO₃ , NO₂ in water sample.

Unit-IV: The Lithosphere and Pollution control

Soil pollution and control measures, biochemical effects of As, Pb, Cd, Hg, Cr, and their chemical speciation, monitoring and remedial measures; noise pollution, agricultural and industrial pollution, green solution to various environmental hazards.

Department of Geography

Course Code: BSCHGEOC402

Course name: Environment and Natural Resource Management

Course Content:

1. Concept of Environment and Natural Resource Management, Human-Environment Relationships
2. Ecosystem: Concept, Structure and Functions; Environmental Issues in Tropical, Temperate and Polar Ecosystems
3. Natural Resource: Concept, Classification; Distribution, Utilisation, Problems and Management of Land, Water, Forests and Energy
4. Conservation of Environment and Natural Resources with special reference to Soil, Water, Forest; Sustainable Resource Development
5. Environmental Monitoring Programme: Policies – Global, National and Local Continuous

Assessment:

Assignment on Local Environmental Issues

Department of Hindi

Course Code: BAHHINDSE604

Course Name: Asmitamoolak Vimarsh Aur Hindi Sahitya

Content/ Syllabus:

इकाई-1: अवस्मतामलू क विमशथकी अधारणा तर्था विशेषताएँ।

इकाई-2 : स्त्री विमशथ की अधारणा , साठोिरी गद्य सावियि में स्त्री विमशथ ।

इकाई-3: दवलत विमशथ की अधारणा , साठोिरी गद्य सावियि में दवलत विमशथ ।

इकाई-4: आवदिासी विमशथ की अधारणा, साठोिरी गद्य सावियि में आवदिासी विमशथ ।

Department of Education

Course Code: BAPEDCSE502

Course Name: Education for Sustainable Development

Course Content:

Unit I Concept and Components of Sustainable Development

• Definition and principles of sustainable development • Characteristics and need of sustainable development • Scope of sustainable development

Unit II History, Goals and Challenges of Sustainable Development

• History of sustainable development • Goals of sustainable development • Challenges of sustainable development goals

Unit III Dimension of Sustainable Development

• Economic Dimension (Concept only) • Social Dimension (Concept only) • Environmental Dimension (Concept only)

Unit IV Current Issue of the Sustainable Development

• Environment and sustainable development • Role of government agencies for sustainable development • Role of NGOs for sustainable development

Unit V Education for Sustainable Development

• Meaning of education for sustainable development • Importance of education for sustainable development • Challenges for the education for a sustainable development

Unit VI The United Nations' Decade of Education for a Sustainable Development

• Key characteristics of education for Sustainable Development • The objectives of the decade of education for a sustainable development • The decade of education for sustainable development within the context of globalization (Indian context) • Education for a sustainable development and education for a sustainable life.

Course Code: BAPEDCGE501

Course Name: Contemporary Issues in Education

Course Content:

Unit I Indian Constitution and the Right to Education

- Constitutional goal for Indian Education
- Right to education and provisions in the Indian constitution
- The right of children to free and compulsory education act 2009 (brief outline)

Unit II Elementary Education

- Universalisation of elementary education-Meaning, aims & objectives
- Sarva Sikshya Abhiyan (SSA), District Primary Education Project (DPEP) - Objectives and functions.
- Challenges and problems of Elementary Education

Unit III Secondary Education

- Quality concerns in secondary education
- Rashtriya Madhyamik Sikshya Abhiyan (RMSA)- Objectives and functions.
- Challenges and problems of secondary education

Unit IV Higher Education

- Developments, concerns and prospects
- Challenges and Problems of Higher education.

Unit V Present Issues in Education

- Gender issues in education
- Issues of quality and equity
- Value education, peace education (Significance)

Unit VI Trends in Indian Education

- SWAYAM
- Family life education
- Privatization of education

Department of History

Course Code: BAHHISDSE602

Course Name: Women and Social Change in the Nineteenth Century

Content/ Syllabus: Unit wise course content distribution

UNIT-1 Introduction–Socio-economic changes and women in contemporary Europe–Women’s role as wife and mother–‘Angel in the House’ in mid-nineteenth century–Emergence of ‘New Women’– Suffragists’ movements

UNIT-2 Women Question and social reform in nineteenth century India–Tension between tradition and modernity-Efforts to modernize women’s role-Rammohun Roy, Ishwarchandra Vidyasagar, Keshab Chandra Sen, Dayananda Saraswati, Virasalingam, M G Ranade

UNIT-3 Printing and emergence of public space–Reformed culture–Women’s writing–
Emergence of “new woman” in the late nineteenth century–Pandita Ramabai, Savitribai Phule,
Sarala Devi, Rokeya Sakhawat Hossain—Nationalism, Becoming them ‘mothers of the nation’.

UNIT-4 Female education–Traditional and Western–Debates over curriculum–Government’s
role–Spread of female education: Bethune School, Mahakali Pathsala.

UNIT-5 Emergence of Women’s organizations–associations founded by men and those founded
and managed by women–Swarnakumari Debi’s Sakhi Samity and Sarala Debi’s Bharat
Stree Mahamandal—emergence of All India Women’s Conference.

UNIT-6 Debate over marriage–Native Marriage Act of 1872; Age of Consent Bill, 1891, The
Rukhmabai Case, Child Marriage Restraint Act of 1929

UNIT-7 Professional women: Chandramukhi Bose, Kadambini Ganguly, and Anandibai Joshi

Department of English

Course Code: BAHENGGE101

Course Name: Contemporary India: Women and Empowerment

Syllabus

Unit I:

Concepts

Social construction of Gender, Masculinity, Femininity, Feminism, Patriarchy, Sex and Gender,
LGBTQ

Unit II:

Issues

Women and Nationalist Movement in India Women and Partition Women and Law Women and
Violence

Unit III:

Texts

Kamala Das: “An Introduction”

Mamta Kalia: “Tribute to Papa”

Mahasweta Devi: “Breast Giver”

Course Code: BAHENGGE301

Course Name: Literature and gender

Syllabus

Unit I: Terms and Concepts

Patriarchy, Domination, Hegemony, Gender, Queer, LGBTQ, Inside/Outside, Other, Gynocriticism, Androgyny, Subaltern Feminism.

Recommended Readings: 1. M.H Abrams: Glossary of Literary Terms 2. J.A.Cuddon: The Penguin Dictionary of Literary Terms and Literary Theory

Unit II: Prose

- Rokeya Sakhawat Hossain: Motichur: Sultana's Dream and Other Writings of Rokeya Sakhawat Hossain, OUP: 2015 & translated by Ratri Roy and Prantosh Bandyopadhyay.[Chapter 1 ('Thirst') and Chapter 2 ('Degradation of Women') of the text]
- Mahasweta Devi's Breast Stories translated by Gayatri Chakravorty Spivak, Seagull, 2016 edition. (Introduction by Gayatri Spivak, page viixiv)
- Virginia Woolf: A Room of One's Own. Grafton Publication 1977. (First Chapter, Page 7-29)

Unit III: Poem

Sylvia Plath: Circus in Three Rings; Event

Course Code: BAHENGC602

Course Name: Women's writing

Syllabus

Unit I:

Literary and Social Background:

History on the Concepts of Evolution of Feminism: The Three Waves; The Confessional Mode in Women's writing. Concepts of Sex, Gender and Class [ref. Virginia Woolf. A Room of One's Own (New York: Harcourt, 1957) chaps. 1 and 6 and Simone de Beauvoir, 'Introduction', in The Second Sex, tr. Constance Borde and Shiela Malovany Chevallier (London: Vintage, 2010) pp. 3-18. – non-detailed and broad-based point of view]. Concepts of Caste, Race and Politics of Sexuality [ref. Kumkum Sangari and Sudesh Vaid, eds., 'Introduction', in Recasting Women: Essays in Colonial History (New Delhi: Kali for Women, 1989) pp. 1-25 and Chandra Talapade Mohanty, 'Under Western Eyes: Feminist Scholarship and Colonial Discourses', in

Contemporary Postcolonial Theory: A Reader, ed. Padmini Mongia (New York: Arnold, 1996) pp. 172-97.]

Unit II:

Drama and Poetry

Manjula Padmanabhan: Lights Out (Worldview Publications) (One short answer type question of 5 marks to be attempted out of two: $5 \times 1 = 5$) Emily Dickinson: "I cannot live with You"
Phillis Wheatley: "An Hymn to the Morning" Sylvia Plath: "Lady Lazarus" Eunice De Souza: "Bequest"

Unit III:

Prose

Alice Walker: The Color Purple Mahasweta Devi: "Draupadi" (Translated: G.C.Spivak)
Charlotte Perkins Gilman: "The Yellow Wallpaper"

Course Code: BAPENGDSE501

Course Name: English literature and Gender

Syllabus

Unit-I (Poetry)

1. Kamala Das: Summer in Calcutta
2. Sylvia Plath: Circus in Three Rings

Unit-II (Prose)

1. Rokeya Sakhawat Hossain: Sultana's Dream
2. Virginia Woolf: "Profession for Women"

Course Code: BAPENGDSE502

Course Name: English literature and Ecology

Syllabus

Unit-I (Poetry)

1. William Wordsworth: Reverie of Poor Susan
2. G.M. Hopkins: Binsey Poplars
3. Gordon J.L. Ramel: Daffodils No More

Unit-II (Prose)

1. Ruskin Bond: Our Trees Still Grow in Dehra : “Coming Home To Dehra”

Department of Political Science

Course Code: BAHPLSGE302

Course Name: Feminism: Theory and Practice

Syllabus

Unit 1: Feminist theorizing of the sex/gender distinction – Biologism versus social constructivism - Waves of Feminism.

Unit 2: Understanding Patriarchy and Feminism – Liberal, Socialist, Marxist, Radical feminism, and Postmodern Schools/Traditions.

Unit 3: Feminism in India: Social Reforms Movements – Sati, widow marriage and child marriage; Feminist issues and women’s participation in anti-colonial and national liberation Movements.

Unit 4: Family in contemporary India – patrilineal and matrilineal practices; Gender Relations in the Family; entitlements and bargaining; Property Rights.

Course Code: BAHPLSDSE501/ BAPPLSGE601

Course Name: Human rights theory and practice

Syllabus

Unit 1: Meaning and brief history of human rights (UDHR)

Unit 2: Human rights – Terrorism and Counter – terrorism

Unit 3: Indian Constitution and protection of human rights

Unit 4: National Human Rights Commission- Composition and functions

Unit 5: Human Rights Movements in India- Evaluation, nature, challenges and prospects

Course Code: BAHPLSDSE502

Course Name: Social movements in contemporary India

Syllabus

Unit 1: Meaning and features.

Unit 2: Social Movement and New Social Movement.

Unit 3: Peasant Movement – Telengana and Singur.

Unit 4: Tribal Movements – POSCO and Niyamgiri.

Unit 5: Environmental Movement – Chipko, Narmada Bachao and Silent Valley

Course Code: BAHPLSDSE505/BAPPLSGE502

Course Name: Gender and politics in India

Syllabus

Unit 1: Conceptualizing Gender in Politics: Political Participation, policy making and development.

Unit 2: Security concern for Women and Third Gender/Transgender.

Unit 3: Effective participation of Women in Decision making structures: Issue of Reservation Impact.

Unit 4: Gender Identity: Women in riot and War.

Course Code: BAHPLSDSE605/BAPPLSSE602

Course Name: Environmental Politics

Syllabus

Unit 1: Environmentalism: Meaning, Key Related Ideas, Significance.

Unit 2: Collective action problems and environmental challenges in developing and developed countries.

Unit 3: Major Environmental Movements in India: Chipko , Narmada Banchao, Salient Valley.

Unit 4: Regional and international efforts to address climate change.

Unit 5: Green Governance: Sustainable Human Development.

Environmental Science

Course Code: AEE101

Course Name: Fundamentals of Environmental Studies

Syllabus

Unit 1: Basic of Environmental Studies

Unit 2: Natural Resources: Renewable and Non-renewable Resources

Unit 3: Ecology and Ecosystems

Unit 4: Biodiversity and Conservation

Unit 5: Environmental Pollution and Management

Unit 6: Environmental Policies and Practices

Department of Philosophy

Course Code: BAHPHIC301

Course Name: Indian Ethics

Suggested Topics:

- puruṣārtha (Cārvāka, Bauddha and āstika views)
- Vedic Concept of ṛta, satya, yajña, ṛṇa, vidhi and niṣedha
- The concepts of niṣkāmakarma and sthitaprajña in the Śrīmadbhagavadgītā
- Buddhist Ethics : pañcaśīla and brahmavihārabhāvanā
- Jaina Ethics : pañcamahāvratā, triratna, anuvratā and mahāvratā


➤ Yoga Ethics : himsā, ahimsā,yama and niyama

Course Code: BAHPHIC302

Course Name: Western Ethics

Suggested Topics:

- Nature and Scope of Ethics; Nature of Morality
- Moral and Non-moral actions
- Object of Moral Judgment : Motive and Intention
- Postulates of Morality
- The Development of Morality
- Normative Theories : Consequentialism (Teleology): Ethical Egoism; Utilitarianism: Act and Rule Utilitarianism; Act and Rule Deontology; Kant's Moral Theory; Divine Command Theory; Eudaemonism
- Theories of Punishment: Retributive, Deterrent And Reformative Theory
- Issues in Applied Ethics : Suicide; Mercy Killing and Euthanasia: Nature and Types; Famine and Affluence; Gender Equality; Basic Concerns of Environmental Ethics: Anthropocentrism, Non-anthropocentrism and Eco-feminism.


(Tridib Santapa Kundu)
Principal
Principal
Deshabandhu Mahavidyalaya
Chittaranjan

DESHABANDHU MAHA VIDYALAYA, CHITTARANJAN



1.3.1. QIM - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the curriculum.

Samples of Seminars/ Webinars/Invited Lectures on Professional Ethics, Gender, Human Values, Environment and Sustainability organized by the institution:

Environment and Sustainability:



Observance of World Environment Day on 17.06.2022

Resource person: Dr. Apurba Ratan Ghosh, Professor, Environmental Science, BU



Annual Environment Awareness Program on 06.12.2022

Resource person: Dr. Apurba Ratan Ghosh, Professor, Environmental Science, BU



Observance of World Environment Day on 30.06.2023

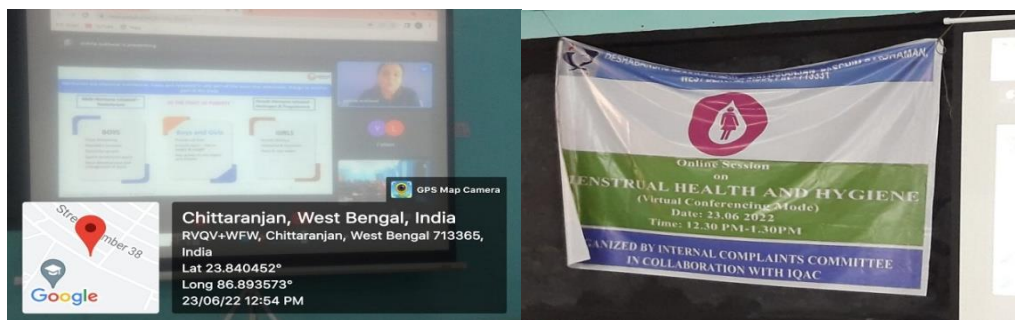
Resource persons: Prof. Swarup Akhuli, Department of Geography, Deshabandhu Mahavidyalaya and Prasun Banerjee, Vigyan Mancha, Paschim Bardhaman

Gender:



Celebration of International Womens' Day on 08.03.2022

Resource person: Dr. Amrita Banerjee, Asstt. Prof. Pol Sc. B.C. College, Asansol



Workshop on Menstrual Health and Hygiene on 23.06.2022

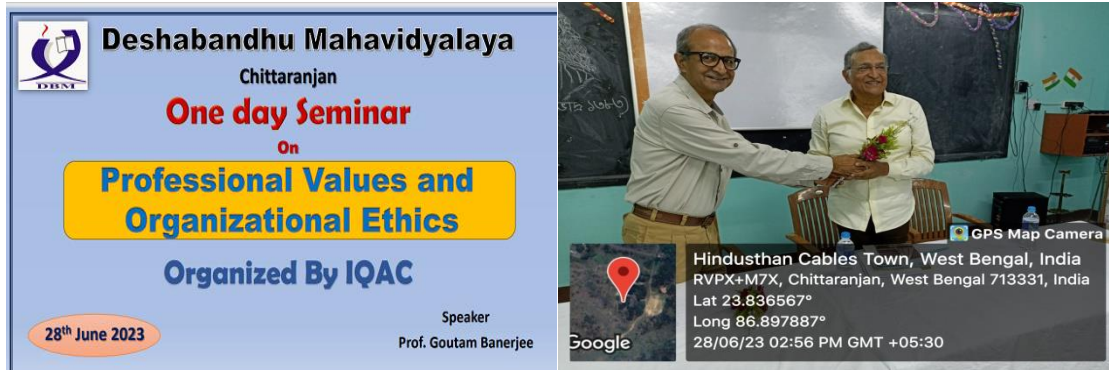
Resource person: Mrs. Ankita Sukhwai and Ms. Bidya R., Member Unicharm India Ltd.



Celebration of International Womens' Day on 24.03.2023

Resource person: Dr.Gopa Samanta, Department of Geography, BU

Professional ethics and values:



Professional Values and Organizational Ethics on 28.06.2023

Resource person: Prof. Goutam Banerjee, Retired Principal of B.C. College, Asansol

Anuho Kumar Ray
 Co-ordinator, IQAC
 Deshabandhu Mahavidyalaya
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[Signature]
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 Principal
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