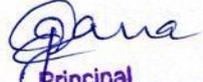


**1.3.1B: Integration of the cross cutting issues  
into different courses and modules of the  
curriculum in detail.**

  
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Sarmilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

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Saraswati Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

**DEPARTMENT OF BENGALI**

**Institution Integrates Cross Cutting Issues relevant to professional ethics, gender, human values and sustainability in transacting the Curriculum**

Cross Cutting Issues relevant to	Courses offered (SEM-PROG., Course Code, name)	Relevant Units	Integration and outcome
<b>PROFESSIONAL ETHICS</b>	CC – 4 (Semester 2) 1] Poetry i. Desh Dekhachho Aondhokare  CC - 10 (Semester – 4) 2] Literary Article i. Siksha O Bigyan ii. Sahityer Rajneeti	i. Moral degradation of the current education system and teaching methods; and upgradation from it  2) i. Bengali essayist expressing his thoughts on various topics like society, education, science, language, and literature  3) The important role of literature and the writer to steer politics in the right direction	i. To develop students as good citizens with the help of proper teaching methods  2) i. Teaching via one's mother tongue, Use of Mother Tongue in Science and Research at the Highest Level of University, Writing the first dictionary of science in the mother tongue  3) Literature takes a positive role to make politics transparent and effective. Literature accelerates the progress of society as well as progressive politics. As a result, a good relationship between literature and politics has developed
<b>GENDER</b>	CC - 4 (Semester 2) 1] Unobingsho Satabdir Nari- Biplob  CC- 7 (Semester 3) 2] Short Stories - Dena-Paona, Laboratory, Subha, Ekhon Prem  CC - 13 (Semester 6) 3] Birangana Kabya	1. Women's education, empowerment and social change in society through the social revolution of the 19th century, the historical perspective of women education  2. Flow of women's progress: Position of Women in Bengali Family in the eastern countries as compared to the West.  3. Influence of the 19th century Renaissance on India's women's awakening	1. Students will be informed about women empowerment.  2. Students will be able to understand the various episodes of the new era that was born in our poetry in contact with colonial modernity and the changing social position of women.  3. They will know how women crossed all strict barriers and became self-awakened, establishing themselves in the society.

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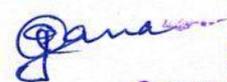
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E.M.Bypass, Baghajatin  
Kolkata - 700 094

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Cross Cutting Issues relevant to	Courses offered (SEM-PROG., Course Code, name)	Relevant Units	Integration and outcome
<b>HUMAN VALUES</b>	<p>CC-4 (Semester 2) 1] Poetry: Suchetana by Tibananda Das 2] Drama: Neel Darpan by Dinobandhu Mitra</p> <p>CC-8 (Semester 4) Chandimangal by Mukundaram Chakraborty</p> <p>CC-12 (Semester 5) Muktadhara by Rabindranath Tagore</p>	<p>1. "Suchetana" means good consciousness - an effort to awaken the good consciousness of people to build a healthy human society, and a humane sense.</p> <p>2. The tyranny of Neelkar Saheb and the spontaneous resistance of people against them, resulting in the awakening of values.</p> <p>3. Bengali literature of the Middle Ages is an integral picture of the social life of the neglected, oppressed masses and the struggle for their rights.</p> <p>4. Many believe the play "Muktadhara" indicates the bard's admiration for Gandhi and his rejection of machines in favour of humanism.</p>	<p>1. This poem will teach them the correct development of human consciousness and good sense in the turbulent world after the Second World War.</p> <p>2. They will learn how the British government was forced to bow to the fierce protests of the people.</p> <p>3. Through this, they will know the history of the struggle for the rights of the poor, neglected, and lower-class people having a sense of liberal humanity.</p> <p>4. The play "Muktadhara" exhibits Tagore's message to the downtrodden who are robbed of their elementary needs and dignity to rise in revolt</p>

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E.M. Bypass, Baghajatin  
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			against all forms of oppression.
<b>SUSTAINABILITY</b>	DSE-A (Semester 5) Social and Cultural History of Bengal	<ol style="list-style-type: none"> <li>1. Geographical and ethnographic identity of Bengal and Bengali nation, identity of social structure, economic base and political history</li> <li>2. The impact of colonial modernity on education, religion and free thought</li> <li>3. Awakening of marginalized/Dalit communities</li> </ol>	<ol style="list-style-type: none"> <li>1. Students will be introduced to the cultural development of the Bengali nation from the period of the emergence of the Bengali language to modern times.</li> <li>2. They will know about the Bengali language and the basis of religion, society, and educational reform of Bengali nation.</li> <li>3. The awakening of the marginal-class population in Bengali literature took place in the following two ways: <ol style="list-style-type: none"> <li>i. Awakening of Literary Awareness in Bengali writers</li> <li>ii. The students will learn about the individual awakening of the marginalized group, i.e., how these people made their permanent place in the society after being hurt at every stage of human history.</li> </ol> </li> </ol>

*Ruma Chakrabarti*  
Head, Department of Bengali

Head, Department of Bengali  
Sammilani Mahavidyalaya

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Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghejatin  
Kolkata-700 094

## DEPARTMENT OF EDUCATION

### Institution Integrates Cross Cutting Issues relevant to professional ethics, gender, human values and sustainability in transacting the Curriculum

Cross Cutting Issues relevant to	Courses offered (SEM-PROG., Course Code, name)	Relevant Units	Integration and outcome
<b>PROFESSIONAL ETHICS</b>	CC – 1 (Semester 1) Introduction to Education  DSE – B (Semester – 5) Teacher Education  DSE – A (Semester – 5) Educational Thought of Great Educators	1. Teacher: qualities and duties of a good teacher. 2. Concept and meaning of teacher education – Scope of Teacher Education – Aims and objectives of Education at Elementary, Secondary and College level. – Teacher training Vs Teacher education 3. Some Courses for preparation of teacher - Pre service teacher education, In service teacher education, Orientation and Refresher courses. 4. Role of teacher as proposed by various great educators	1. Under stands the basic concept of teacher education 2. Students get to know the various qualities, duties and functions of a good teacher. 3. Great Educators expressed their views on role of teacher and how a teacher should perform in an educational setting
<b>GENDER</b>	DSE – A (Semester – 6) Gender and Society	1. Gender Concept 2. Gender Socialization 3. Gender Roles 4. Gender Inequalities in school	1. They understand the basic terms, concepts used in gender studies. 2. They understand the gender discrimination in construction and dissemination of knowledge. 3. They develop an awareness and sensitivity. 4. They understand the dynamics of gender in the classroom in reference to girl friendly school, co-education and single sex schooling
	DSE – B (Semester – 6) Women Education	1. Historical Perspectives of Women Education 2. Policy Perspective, Committee and Commission on Women Education 3. Role of Indian Thinkers in promoting Women Education	1. They know the historical perspectives of Women Education 2. They know the Policy Perspectives and Committees and Commissions on Women Education. 3. They know the role of

*Mairika Chakrabarti*  
HEAD  
DEPT OF EDUCATION  
Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatin  
Kolkata - 700 094

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Sammilani Mahavidyalaya  
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Kolkata - 700 094

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		4. Major Constraints of Women Education and Women Empowerment	Indian thinkers towards Women Education 4. They identify major constraints of Women Education and Women Empowerment
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Cross Cutting Issues relevant to	Courses offered (SEM-PROG., Course Code, name)	Relevant Units	Integration and outcome
<b>HUMAN VALUES</b>	CC-4 (Semester 2) Philosophical Foundation of Education  DSE – A (Semester – 5) Educational Thought of Great Educators	<ol style="list-style-type: none"> <li>Philosophy for development of humanity . <ul style="list-style-type: none"> <li>Education and development of values</li> <li>Education for national integration.</li> <li>Education for international understanding.</li> <li>Education for promotion of peace and harmony</li> </ul> </li> <li>Indian schools of philosophy Vedic school - Sankhya → Vedic school - Yoga → Non-vedic School - Buddhism → Non-vedic School – Jainism.</li> <li>Western schools of philosophy → Idealism → Naturalism → Pragmatism → Realism</li> <li>Western Philosophers Plato → Rousseau → MontessoriPestalozzi → Dewey → Ivan Illich</li> <li>Indian Philosophers- Vivekananda → Rabindranath → Gandhiji, Radhakrisnan → Begum Rokeya → Sister Nivedita</li> </ol>	<p>They get acquainted with the Indian schools of philosophy and their impact on education</p> <p>They get acquainted with the western schools of philosophy and their impact on education.</p> <p>They develop an understanding of philosophy for development of humanity and human values. Philosophies of great educators Enable them to learn about their lives and teachings and imbibe their ideas.</p>
<b>SUSTAINABILITY</b>	CC – 5 (Semester 3) Sociological Foundation of Education	<p>Introductory Concept of Sociology of Education</p> <p>Social Groups</p> <p>Social Change and Education</p> <p>Social Communication in Education</p>	<ol style="list-style-type: none"> <li>They understand the relation between Sociology and Education, nature, and scope of Sociology of education.</li> <li>The concept of Social Groups and</li> </ol>

*Harisha Chakrabarti*  
HEAD  
DEPT OF EDUCATION  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094

*Gana*  
Principal  
Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatin  
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			<p>Socialization process is developed in them.</p> <ol style="list-style-type: none"><li>3. Enable them to understand the concept of Social change and Social interaction in education</li><li>4. They become aware of social Communication</li></ol>
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*Marisha Chakrabarti*

HEAD  
DEPT OF EDUCATION  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094

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Department of English  
Sammilani Mahavidyalaya

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross Cutting issues relevant to	Courses offered to address the cross-cutting issues (Sem-Programme- Course code-Course name)	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
Professional Ethics	Sem.6- Media and Communication Studies	Introduction to Mass; Communication Mass Communication and Globalisation; Advertisements and Creating Advertisements	<ul style="list-style-type: none"> <li>a) Identify the multiple ethical interests at stake in a real-world situation or practice</li> <li>b) To instill Moral and Social Values and Loyalty</li> <li>c) To appreciate the rights of others.</li> <li>d) To create awareness on assessment of safety and risk</li> </ul>
	Sem.3 SEC A2	Business Communication	Demonstrate knowledge of ethical values in non-classroom activities, such as service learning; Integrate, synthesize, and apply knowledge of ethical dilemmas and resolutions in academic settings, including focused and interdisciplinary approach.
Gender	Sem. 5- Women's Writing	Poetry: Emily Dickinson, 'I cannot live with you'; Elizabeth Barrett Browning, 'How	An awareness of Gender, Women's rights and

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Kolkata

		do I love thee'; Eunice De Souza, 'Advice to Women' Fiction: Alice Walker, Color Purple OR Emily Bronte, Wuthering Heights; Mahasweta Devi, 'Draupadi', translated Gayatri Chakravorty Spivak; Katherine Mansfield, 'Bliss' Non-Fiction Mary Wollstonecraft, A Vindication of the Rights of Woman, Chapters I & II (New York: Norton, 1988); Rassundari Devi, Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop.	empowerment gives the students an even-ground to give proper attention to everyday discrimination in the real-world on the basis of gender, and form their own opinion with respect to them.
	Sem.5- DSE A2	Virginia Woolf: 'A Room of One's Own'	
	Sem. 6 – DSE B3	Binodini Dasi, My Story and Life as an Actress	
	Sem.3- GE3	Poetry Elizabeth Barret Browning: 'How Do I Love Thee'; Christina Rossetti: 'Uphill'; Emily Dickinson: 'I cannot live with you'; Sarojini Naidu: 'Palanquin Bearers' Prose Rassundari Devi: Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop. Rokeya Sakhawat Hussain: Sultana's Dream	
Human values*			
Environment *			
Sustainability*			

\*All topics under the purview of English Literature are given an emphasis in engaging with topics as diverse as Human Values and Environmental sustainability.

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Head, Department of English  
Sammilani Mahavidyalaya

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Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

# DEPARTMENT OF HISTORY

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3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem-programme-course code-course name)	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS			
GENDER	SEM I, CE I (C) HISA	<ul style="list-style-type: none"> <li>Historical Interpretations (with special reference to gender, environment, technology and region.</li> </ul>	<p>Tried to change the traditional viewpoint to look at History on a Subject, explained to the students the new interpretation.</p>
HUMAN VALUES	SEM I, CE 2 (1), HISA  CE 2 (V), HISA	<ul style="list-style-type: none"> <li>Evolution of human kind, Role of kinship in social institutions in the development of early societies.</li> <li>Slave societies in ancient Greece and Rome.</li> </ul>	<p>Helped to develop a kind of 'bondage' among the members of society.</p>
ENVIRONMENT		<p>Human values were jeopardized at that time. At the present age we can't see slavery anywhere in the world.</p>	
SUSTAINABILITY	SEM III, CE 3/1C, HISA	<p>Untouchability, gender, marriage, property relations</p>	

Bhanu Gangopadhyay  
Head, Department of History  
Sammilani Mahavidyalaya

Principal  
Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatta  
Kolkata-700 094

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**DEPARTMENT OF HISTORY (2)**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem-programme-course code-course name)	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
<p>PROFESSIONAL ETHICS</p>	<p>→ SEM III, CC 3/111 (C) I HSA →</p>	<p>• Changing norms of marriage and property</p>	
<p>GENDER</p>	<p>→ SEM III CC 5/111 (C) &amp; (D) I HSA</p>	<p>• Prostitution &amp; caste, status of untouchables.                      • Tribes as peasants and their place in the Varna order</p>	
<p>HUMAN VALUES</p>		<p><i>Raman Gangadharan</i>                      Head, Department of History                      Sammilani Mahavidyalaya</p>	<p><i>Rama</i> <b>ATTESTED</b>                      Principal                      Sammilani Mahavidyalaya                      E.M. Bypass, Baghajatin                      Kolkata - 700 094</p>
<p>ENVIRONMENT</p>			
<p>SUSTAINABILITY</p>			

3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem-programme-course code-course name)	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
<p>PROFESSIONAL ETHICS</p>	<p>SEM 5, CE 11 (C) HISA</p>	<p>Social classes and emerging gender relations.</p>	
<p>GENDER</p>	<p>CE 11 (B) HISA</p>	<p>Capitalist-Industrialization and socio-economic transformation</p>	
<p>HUMAN VALUES</p>	<p>SEM 5, CE 12 (A) HISA</p>	<p>(b) Evolution and differentiation of social classes (d) Family, gender and process of industrialization</p>	<p>Forest-Policy</p>
<p>ENVIRONMENT</p>		<p>Head, Department of History Sammilani Mahavidyalaya</p>	<p>By adopting Policy of afforestation Programme cutting of trees were banned. Removal of forests are prevented.</p>
<p>SUSTAINABILITY</p>			<p>Principal Sammilani Mahavidyalaya E.M. Bypass, Baghajatin Kolkata - 700 094</p>

DEPT. OF HISTORY (A)

3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem-programme-course code-course name)	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
<p>PROFESSIONAL ETHICS</p> <p>GENDER</p> <p>HUMAN VALUES</p> <p>ENVIRONMENT</p> <p>SUSTAINABILITY</p>	<p>SEM VI DSEA3 (V) HISA</p> <p>SEM VI I (C) HISA</p> <p>SEM VI IV (B) " " " "</p> <p>SEM VI DSEA1 (V) HISA</p> <p>SEM VI DSEA2 (V) HISA</p>	<p>Women's movement in Bengal</p> <p>Debates over gender Women</p> <p>Social Reforms and the women's question</p> <p>Various Post-Modern</p> <p>Beginning of the era of Colonization: by the African slaves</p> <p><i>Pranami</i> Head, Department of History Sammilani, Matavidiyalaya</p>	<p>We organize Seminars by Women's Forum every year on International women's day to integrate the Gender issue</p> <p>NSS Organizes Social outreach programme to promote human values.</p> <p>To promote Environment Sustainability we observe 'Baranokho-tyab' in the month of July.</p> <p><i>Pranami</i> Principal Sammilani, Matavidiyalaya Kolkata-700 094</p> <p><b>ATTESTED</b></p>

**NAME OF THE DEPARTMENT (PHILOSOPHY)**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem- programme-course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS	SEC -B (PHIA) SEM-4 Emerging trends of thought & PHIG-SEC-A	A. Business Ethics : 1. why study Business Ethics? 2. Environment and Business Ethics 3. Ethics in management	<ul style="list-style-type: none"> <li>Understands ethical values in business and profession</li> <li>Understands the difference between management ethics and altruistic ethics.</li> </ul>
GENDER	SEC -B (PHIA) SEM-4 Emerging trends of thought	C.Feminist Philosophy: Basic concepts of Feminism;Different branches of Feminism; Sexism; Patriarchy and Androcentricism, Sex-Gender discrimination;	<ul style="list-style-type: none"> <li>Students of Philosophy understand and analyse the issues related to gender bias.</li> <li>Assess arguments and philosophical perspectives regarding gender discrimination using critical reasoning.</li> <li>Able to express complex thoughts logically and coherently.</li> <li>Gathered scientific knowledge regarding patriarchal - matriarchal dichotomy.</li> </ul>
HUMAN VALUES	PHIA- CC-12 Ethics ( Indian) & CC-14 Ethics ( Western) PHIG-DSE-A Ethics	Moral and Non-moral actions; kant's moral theory; Standards of morality; theories of punishment	<ul style="list-style-type: none"> <li>Students of philosophy understands the value of humankind</li> <li>They can able to critically think over the morality and sanctity of human life as well.</li> <li>Some of the students participated actively in inter -college youth convention on human</li> </ul>

*Ranjit Shaw*

Department of Philosophy  
Sammilani Mahavidyalaya  
Baghajatin, Kolkata-700 094

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**ATTESTED**

Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

			values and received certificates. <ul style="list-style-type: none"> <li>• Online webinar on Buddhist ethics and present day relevance</li> </ul>
ENVIRONMENT	PHIA-SEC-B SEM-3 & PHIG-SEC-B SEM -3 Man and Environment	<ol style="list-style-type: none"> <li>1. Classical Indian Attitude to Environment</li> <li>2. Respect for nature</li> <li>3. Intrinsic value of nature</li> <li>4. Deep-ecology</li> <li>5. Eco-feminism</li> </ol>	<ul style="list-style-type: none"> <li>• Understands the value of preserving mother nature</li> <li>• Understands comprehensively the relation of mankind with nature.</li> </ul>
SUSTAINABILITY			

*Ranjit Shu*  
30.10.2023

Signature of the HOD with date

Department of Philosophy  
Sammilani Mahavidyalaya  
Baghajatin, Kolkata-700 094

*Gana*  
**ATTESTED**  
Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

## DEPARTMENT OF POLITICAL SCIENCE

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

Cross Cutting Issues	Courses offered related to cross cutting issues (Sem-Course-Code Name)	Relevant topics in Module integrating cross cutting issues	Integration and Outcome
<b>PROFESSIONAL ETHICS</b>	<p><b>SEM IV-SEC-B(1) Legislative Practices and Procedures</b></p> <p><b>SEM VI-CC-13 &amp; 14 (CC-13-Public Administration: Concepts and Perspectives)</b></p> <p><b>(CC-14-Administration and Public Policy in India)</b></p>	<p>Module I- 1.MP powers and privileges Module II-5 &amp; 6. Types of Committee and Role of Committees</p> <p>Module II 8. Public Policy</p> <p>Module I 2&amp; 5 Civil Service, Recruitment, Training, District Administration</p>	<p>1. MP becomes aware about Ethics Committee, its role and comprehends her or his accountability towards the constituency</p> <p>2. Helps in betterment of society in larger perspective.</p> <p>1. Helps in proper policy making.</p> <p>2. Policy that are morally right and pro people or people-centric.</p> <p>1. Helps to recruit efficient administrators and professionals.</p> <p>2. Good policy makers help in social upliftment</p>
<b>GENDER</b>	<p><b>SEM V-CC-12 Political Sociology</b></p> <p><b>SEM V-DSE-A(1) Gender and Politics</b></p>	<p>Module II 7. Gender and Politics: basic issues</p> <p>Module I &amp; II (entire paper is related)</p>	<p>1. Helps to sensitise the society that both the sex are at par.</p> <p>2. Gender Parity is quintessential for social proliferation.</p> <p>3. Helps to support cause of women and implement gender sensitive policies.</p>

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*Supriya Mukherjee*

Head, Department of Political Science  
Sammilani Mahavidyalaya

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Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

	<b>SEM VI-DSE-B(4) Human Rights in a Comparative Perspective</b>	Module II Gender and Violence: India and Pakistan	3. Youth can work for better future. 1. Sensitization about rights of women and intensity of torture in both the countries.
<b>HUMAN VALUES</b>	<b>SEM VI-DSE-B(4) Human Rights in a Comparative Perspective SEM VI PLSG- DSE 2B Human Rights: Theory and Indian Context</b>	Both the papers entire syllabus and Course related to Indian Political Thought	1. Makes one realise the importance of human values and being humane.
<b>ENVIRONMENT AND SUSTAINABLE DEVELOPMENT</b>	<b>SEM IV-CC9 Global Politics since 1945  SEM V DSE B(1) Indian Foreign Policy in a Globalising World SEM VI DSE-A(4) Understanding Global Politics</b>	Module II 6. Sustainable Development Goals Module II 5. Environment  Global Environment	1. sensitizes about ecology and makes one think seriously about conservation and adopt sustainable measures.

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Head, Department of Political Science  
Sammilani Mahavidyalaya

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Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700-094

**Name of the department= SANSKRIT**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values and sustainability in transacting the curriculum

Cross cutting issues relevant to	Courses offered to address the cross-cutting issues (Sem-programme-course-code-name)	Relevant units and topics integrating the cross cutting issues	Integration and outcome
<b>PROFESSIONAL ETHICS</b>	CC-4, SEM-II (self-management in the Gītā) CC7, SEM-III unit-ii, Social Institution and Dharmaśāstra literature[different kinds of dharma in social ethics]	<ol style="list-style-type: none"> <li>1. Importance of surrendering self-ego in a professional field</li> <li>2. Acquisition of moral and ethical qualities</li> <li>3. Means of conflict resolution and importance of knowledge</li> </ol>	<ol style="list-style-type: none"> <li>1. Understands ethical values in any kind of professional field</li> <li>2. It will help to overcome the conflict between what to do and what not to do</li> <li>3. It will help to control over senses and choose right decision</li> </ol>
<b>GENDER</b>	CC-7, SEM-3 (Section B-Structure of society and values of life, Unit –III- Position of Women in the Society)	<ol style="list-style-type: none"> <li>1. Brief survey of position of women in different stages of society</li> <li>2. Importance of gender equality</li> <li>3. High value of women in Indian society</li> </ol>	<ol style="list-style-type: none"> <li>1. It helps to understand the enrich culture of our Indian society where women treats like goddesses</li> <li>2. It helps to consider the importance of gender equality where men and women like two wings of a same bird</li> </ol>

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Principal

Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
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			<p>without their progress society will not arise</p> <p>3. It helps them to rethink how enrich culture we have in our past since Rigvedic era</p>
<b>HUMAN VALUES</b>	<p>CC-7, SEM-III, Section-B, Unit –I (Structure of Society and Values of Life) Unit-IV (Human Values of Life)</p>	<ol style="list-style-type: none"> <li>1. What is the essence of value in our society?</li> <li>2. Attain four pillars of life- Dharma, Artha, Kama and moksa</li> <li>3. Moral and ethical values in Life`</li> <li>4. Why values effects to others</li> </ol>	<ol style="list-style-type: none"> <li>1. It helps to understand the innermost meaning of life and why values play an important role to upgrdate</li> <li>2. They can able to understand the importance of human life and how it helps to benefit other</li> <li>3. They can understand how ones karma plays a vital role in society and how to uplift our society</li> </ol>
<b>ENVIRONMENT &amp; SUSTAINABLE DEVOLOPMENT</b>	<p>CC-11, SEM-V, section-A, unit III- Atharvaveda sāmmanasyam, Bhūmi sūkta, SEM-III, CC-5, SEC A &amp; B- Abhijñānaśakuntalam</p>	<ol style="list-style-type: none"> <li>1. What is environment and why it is so important for human phenomena?</li> <li>2. Ecological system and bio-diversity</li> <li>3. Man-nature</li> </ol>	<ol style="list-style-type: none"> <li>1. They can understand the fundamental concept of nature or environment and our bio-diversity system which have to be</li> </ol>

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		<p>relationship and its sustainable development</p>	<p>maintained</p> <ol style="list-style-type: none"> <li>2. They can realize how environment in our day to day is being polluted and why our health is being affected</li> <li>3. Our ancient Vedas has raised its voice to say "Earth is our Mother and I am her Son" that is <i>mātā bhūmi putro'ham pṛthivyā</i>. Students can feel pride to understand how our ancient seer gave too much importance to keep clean to our environment.</li> <li>4. After realizing the necessity of environment they will go further to keep our environment healthy and clean .</li> </ol>
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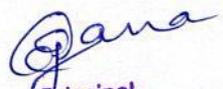
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E.M.Bypass, Baghajatin  
Kolkata - 700 094

*Sudeshna Basu*  
Head

Department of Sanskrit  
Sammilani Mahavidyalaya  
Baghajatin, Kol - 94

# SCIENCE

  
Principal  
Sarmilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

**DEPARTMENT OF BOTANY**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem- programme- course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS	NA		
GENDER	NA		
HUMAN VALUES	NA		
ENVIRONMENT	1. Sem I, CC 1, PLANT DIVERSITY I	Phycology, Mycology, Plant pathology, Bryophytes	<ul style="list-style-type: none"> <li>❖ Gain knowledge on different groups of plants and microbes,</li> <li>❖ their evolutionary history and</li> <li>❖ their ecological and economical roles</li> </ul>
	2. Sem II, CC 2, PLANT DIVERSITY II	Pteridophytes, Gymnosperms, Angiosperm morphology and Taxonomy	
	3. Sem III, CC 3, Cell biology, Genetics and Microbiology	Microbiology	
	4. Sem V, DSE A, PHYTOCHEMISTRY AND MEDICINAL BOTANY	Medicinal Botany, Pharmacologically active constituents, Ethnobotany and folk medicine	<ul style="list-style-type: none"> <li>❖ Explore the uses of plants as medicine by traditional indigenous approaches,</li> <li>❖ drug evaluation,</li> <li>❖ conservation practices of medicinal plants</li> </ul>
	5. Sem VI, DSE B, ECONOMIC BOTANY	Origin of cultivated plants, rice, legumes, beverages, Study of economically important plants	<ul style="list-style-type: none"> <li>❖ Identify the economically important plant species,</li> <li>❖ their morphology and origin</li> <li>❖ used parts and uses</li> </ul>
SUSTAINABILITY	1. Sem III, SEC A, PLANT BREEDING AND BIOMETRY	Plant breeding, mass and pure line selection	<ul style="list-style-type: none"> <li>❖ Acquire knowledge on selection and proper breeding method for sustainable crop improvement.</li> <li>❖ Understanding the role of mutation, polyploidy, distant</li> </ul>

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**HEAD**  
**DEPT OF BOTANY**  
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			hybridization and biotechnology for the production of superior genotypes.
	2. Sem V, SEC B, PLANT BIOTECHNOLOGY	Plant tissue culture, Micropropagation, Recombinant DNA Technology, Achievements in crop biotechnology	<ul style="list-style-type: none"> <li>❖ Application of tissue culture in forestry, horticulture, agriculture, and pharmaceutical industries.</li> <li>❖ Use of recombinant DNA technology for sustainable improvement of plants.</li> <li>❖ Understanding the role of Biotechnology in Plant, Animal and Human welfare.</li> </ul>

*Dipannita Parial*

Dr. Dipannita Parial

Signature of the HOD with date

**HEAD  
DEPT OF BOTANY  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094**

**HEAD  
DEPT OF BOTANY  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094**

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E.M. By Pass, Baghajatin  
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Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata - 700 094

**NAME OF THE DEPARTMENT : CHEMISTRY**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem- programme-course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS	N.A	N.A	N.A
GENDER	N.A	N.A	N.A
HUMAN VALUES	N.A	N.A	N.A
ENVIRONMENT	Semester: I (NEP-2022)  Chemistry Major Paper: CHEM-H-SEC1-1-Th Module: III & IDC Paper : CHEM-H-IDC1-1-Th Module: III	Water analysis and water treatment technologies  1) Standards of water quality of portable, domestic, industrial and agricultural purpose. 2) Hardness of water, TDS etc. 3) Household water treatment. 4) Disinfection of water 5) DO, BOD and COD	<ul style="list-style-type: none"> <li>To learn about the quality of water in portable, domestic, industrial and agricultural purpose.</li> <li>Learn about how to treat and disinfect the household water.</li> <li>To learn about treatment of industrial effluents.</li> </ul>
SUSTAINABILITY	Semester: VI (CBCS-2018)  Chemistry Hons. Paper : DSE-A3 & Chemistry General Paper : DSE-B1	Green chemistry and and chemistry of natural products  1) Introduction of Green Chemistry 2) Principles of Green Chemistry 3) Example of Green Synthesis 4) Future Trends 5) Alkaloids 6) Terpenes	<ul style="list-style-type: none"> <li>To learn about green chemistry and its necessity.</li> <li>To study about the principles of green chemistry and designing the green synthetic routes.</li> <li>To know about the examples of green reactions and future trends in green reaction.</li> <li>To learn the synthesis, psychological properties, isolation medicinal importance and other synthetic use of terpenes and alkaloids</li> <li>To learn how to perform green synthesis of a number of organic compounds in the laboratory.</li> </ul>

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**DEPT OF CHEMISTRY**  
**Sammilani Mahavidyalaya**  
**E.M. By Pass, Baghajatin**  
**Kolkata-700094**

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E.M. Bypass, Baghajatin  
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**NAME OF THE DEPARTMENT : COMPUTER SCIENCE**

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem- programme-course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS	CMS-A-SEC-B-4-1-TH: Information Security	<ul style="list-style-type: none"> <li>define what information is</li> <li>appreciate the value of information to the modern organisation</li> <li>understand the CIA triad of Confidentiality, Integrity and Availability</li> <li>appreciate the difficulties that arise when valuable information needs to be shared</li> <li>identify the five leading-edge resources that have up-to-date information on information security.</li> </ul>	An integrated security architecture, including people, process, and technology, will improve overall security posture. These benefits are leading many organizations to consolidate their systems into a single platform across physical security, cyber security, HR, legal, and compliance
GENDER	N.A	N.A	N.A
HUMAN VALUES	N.A	N.A	N.A
ENVIRONMENT	N.A	N.A	N.A
SUSTAINABILITY	N.A	NA	NA

Signature of the HOD with date

*Swagata Saha San*  
 HEAD  
 DEPT OF COMPUTER SCIENCE  
 Sammilani Mahavidyalaya  
 E.M. By Pass, Baghajatin  
 Kolkata-700094

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 E.M.Bypass, Baghajatin  
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**DEPARTMENT OF GEOGRAPHY**

**B. Sc Honours in Geography (GEOA) - CBCS**

**B. Sc General with Geography (GEOG) - CBCS**

Institution integrates cross cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

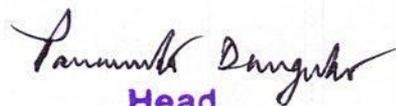
Cross cutting issues relevant to	Courses offered to address the cross cutting issues	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS	GEOA –Sem VI CC11 - Research Methodology and Field work.	<b>Unit I</b> 5. Techniques of writing scientific report. 6. Plagiarism classification and prevention. <b>Unit II</b> Field work in Geographical studies : role and significance, selection of study area and objectives, pre-field academic preparation, ethics of field work.	These courses enable the students to be conscious about adherence to copy right rules, avoidance of plagiarism, ethics of field work and other such code of conduct.
GENDER	GEOA –Sem II CC3 – Hunan Geography	<b>Unit – II</b> Demography and ekistics Practical ; Construction and analysis of Age-sex pyramids.	The courses inculcate the knowledge on the issues like gender inequality, disparity in literacy rate , inequality in work participation, inequality in age-sex distribution of population etc. and all these help them not to be gender bias and to be free from prejudiced actions and thoughts.
	GEOG –Sem III CC3 – Hunan Geography	<b>Unit II</b> 7. Race, language and religion. 8. Social issues.	
	GEOA –Sem V DSE B- 5 - Cultural Geography	<b>Unit I</b> 4. Cultural segregation and cultural diversity. 5. Races and racial groups.	
	GEOG –Sem VI DSE B – Population Geography	<b>Unit II Population and development</b> 5. Population composition. 6. Fertility and mortality. 7. Population composition in India 10. Population and development. 11. Population policies in developed and less developed countries 12. Contemporary issues - ageing of population, declining sex ratio, population and environment dichotomy, impact of HIV/AIDS.	
HUMAN VALUES	GEOA – Sem IV – CC9 – Regional Planning and Development	<b>Unit – II</b> 7. Human development 8. Theories and models of regional development	Effective delivery of this portion of the curriculum helps the students to have clear idea about the social

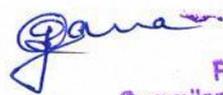
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*Paramita Dasgupta*  
**Head**  
Department of Geography  
Sammilani Mahavidyalaya  
Baghajatin Stn./E. M. Bypass  
Kolkata - 700 094

*Gane*  
**Principal**  
Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatin  
Kolkata

		<b>Unit – III</b> <b>9.</b> Models and theories of regional development. <b>10.</b> Underdevelopment. <b>11.</b> Regional development in India. <b>12.</b> Measures for balanced development in India.	disparities, economic disparities and development disparities, which results in to a feeling of empathy among the students for the underprivileged people and community. This ultimately helps them to be sensible and responsible citizens.
	<b>GEOA – Sem V – CC11 – Research methodology and Field work</b>	<b>Practical –</b> Participation in field work and preparation of a field report.	Field work provides immense scope of student-teacher interaction, by means of which a teacher can inculcate moral and human values in to the students. Actually teachers are always being followed by the students and the students learn values observing the practices of a teacher. Besides, field work is such an organized, disciplined and collective activity that during the course of field work, the students develop a close bonding among themselves, they become more empathetic to each other, they become more dedicated, more helpful and show willingness to sacrifice for others.
<b>ENVIRONMENT</b>	<b>GEOA –Sem II CC3 - Human Geography</b>	<b>Unit II</b> <b>6.</b> Human adaptation to environment <b>9.</b> Development-environment conflict	The Under Graduate curriculum of geography encompasses a wide range of environmental issues and challenges both on local and global scale and also provides the solutions. The paper on soil and bio geography helps the students to be familiar with the different components of biotic environment. The paper on hydrology and oceanography deals with the environmental problems related to the hydrosphere. The course on natural hazard and management introduces the students to a diverse range of natural hazards and help them to get acquainted with the causes and consequences of most of the commonly experienced hazards and the management strategies to be adopted to mitigate the same. The students of 5 <sup>th</sup> semester
	<b>GEOG –Sem II CC2 – Environmental Geography</b>	<b>Unit I</b> <b>4.</b> Global climate change <b>Unit III</b> <b>10.</b> Ecosystem and biome <b>11</b> Plant types and ecological adaptations <b>12.</b> Biodiversity	
	<b>GEOA –Sem III CC5 - Climatology</b>	<b>Unit I</b> <b>4.</b> Overview of climate change: Green house effect, formation, depletion and significance of the ozone layer.	
	<b>GEOA –Sem III CC6 - Hydrology and Oceanography</b>	<b>Unit – II</b> <b>12.</b> Sea level change.	
	<b>GEOG –Sem III SEC A – Coastal Management</b>	<b>2.</b> Environmental impact and management of oil exploration, salt manufacturing, land reclamation and tourism. <b>3.</b> Coastal hazards and their management. <b>4.</b> Principles of coastal zone	

  
**Head**  
Department of Geography  
Sammitani Mahavidyalaya  
Baghajatin Stn./E. M. Bypass  
Kolkata - 700 094

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Principal  
Sammitani Mahavidyalaya  
E.M. Bypass, Baghajatin  
Kolkata - 700 094

		management.	willingly opted for 'Climate change' as the DSE A 5 paper, which is no doubt the matter of utmost concern in the present century. Undergoing all these courses related to environment, a student becomes an environmentally conscious, responsible citizen with a clear idea about 'what to do' and 'what not to do' for maintaining the delicate balance of our environment.
	<b>GEOA –Sem IV CC10 - Soil and Biogeography</b>	<b>Unit I</b> 5. Soil erosion and degeneration <b>Unit II</b> 7. Concept of biosphere, ecotone, ecology etc. 8. Trophic structure, food chain, food web, energy flow. 9. Classification of biome. 10. Bio-geochemical cycles. 11. Desertification. – causes, consequences and management. 17. Bio diversity: Definition, types, threats and conservation measures.	
	<b>GEOA –Sem V DSE A- 5 - Climate Change</b>	1. The science of climate change. 2. Climate change with reference to geological time scale. 3. Factors of climate change. 4. Green house gases and global warming. . 5. Heat balance of the earth. 6. Global climatic assessments – IPCC reports. 7. Climate change and vulnerability. 8. Importance of climate change. . 9. Global initiatives to climate change mitigation. 10. Climate change vulnerability assessment and adaptive strategies in south Asia. 11. National action plans on climate change. 12. Role of urban local bodies.	
	<b>GEOA –Sem VI CC 14 - Hazard Management</b>	<b>Unit I</b> 1. Classification. 2. Approaches to hazard study 3. Responses to hazard <b>Unit II</b> 5. Earthquake. 6. Land slide. 7. Land subsidence 8. Tropical cyclone. 9. Flood 10. River bank erosion 11. Fire 12. Bio hazard 4. Hazard mapping	
<b>SUSTAINABILITY</b>	<b>GEOA –Sem III CC6 - Hydrology and Oceanography</b>	<b>Unit – II</b> 11. Marine resource: classification and	The Under Graduate curriculum of Geography includes an optional SEC

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*Paramita Sengupta*  
**Head**  
 Department of Geography  
 Sammilani &  
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*Gana*

**Principal**  
 Sammilani Mahavidyalaya  
 E.M. Bypass, Baghajatin  
 Kolkata - 700 094

		sustainable utilization.	paper on sustainable development and our students have opted for the same to make themselves well aware of this cross cutting issue. Besides, there are some relevant modules on sustainability in the curricula of the other core courses. While teaching those papers, the faculties take special care to sensitize the students regarding this issue.
	<b>GEOA –Sem IV SEC B - Sustainable Development</b>	<b>1.</b> Concept. <b>2.</b> Challenges of sustainable development. <b>3.</b> Determinants of global environmental issues. <b>4.</b> Global goals for sustainable development.	
	<b>GEOA –Sem VI DSE B 5- Resource geography</b>	<b>Unit I</b> <b>4.</b> Pressure on resource. <b>5.</b> Problems of resource depletion. <b>6.</b> Sustainable resource development <b>Unit II</b> <b>10.</b> Contemporary energy crisis and future scenario <b>11.</b> Politics of power resources <b>12.</b> Limits to growth and sustainable use of resources	

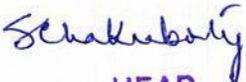
*Panamko Sangupto*  
*Head, Department of Geography*  
 Head  
 Department of Geography  
 Sammilani Mahavidyalaya  
 Baghajatin Stn./E. M. Bypass  
 Kolkata - 700 094

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 Sammilani Mahavidyalaya  
 E.M.Bypass, Baghajatin  
 Kolkata - 700 094

**Department of MICROBIOLOGY**

**1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum**

Cross cutting issues relevant to	Courses offered to address the cross cutting issues	Relevant units and Topics integrating the cross cutting issues	Integration and outcome
Professional Ethics	DSE-A: A1. Microbial Biotechnology  CC-10: Recombinant DNA Technology  CC12: Industrial Microbiology	<ul style="list-style-type: none"> <li>• Unit 7 Intellectual Property Rights</li>   <li>• Unit 1 Introduction to Genetic Engineering</li> <li>• Unit 6 Applications of Recombinant DNA Technology</li>   <li>• Industrial Visit to see the downstream operations of industrial fermenter.</li> </ul>	<ul style="list-style-type: none"> <li>• These parts of the curriculum aim at holistic development of the students pertaining to the use and utility of patents and copyrights, ethical issues related to scientific works and code of conduct related to educational visits and tours.</li> </ul>

  
**HEAD**  
**DEPT OF MICROBIOLOGY**  
**Sammilani Mahavidyalaya**  
**E.M. By Pass, Baghajatin**  
**Kolkata-700094**

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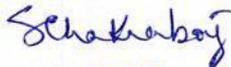
<p><b>Human values</b></p>	<p>SEC-A</p> <p>A1. Microbial Quality Control in Food and Pharmaceutical Industries</p>	<ul style="list-style-type: none"> <li>• Unit 1 Microbiological Laboratory and Safe Practices</li> <li>• Unit 2 Determining Microbes in Food / Pharmaceutical Samples</li> <li>• Unit 3 Pathogenic Microorganisms of Importance in Food &amp; Water</li> <li>• Unit 4 HACCP for Food Safety and Microbial Standards</li> </ul>	<p>These parts of the curriculum aim at making the students aware and conscious about the</p> <ul style="list-style-type: none"> <li>• Safety, security and health considerations when working with Microbes.</li> <li>• The responsibility of the laboratory to maintain safety information and documentation.</li> <li>• The application of Food microbiology for human wellbeing, because humans carry more microbial cells than mammalian cells, eat microbial fermented foods and become ill from many microbial infections.</li> <li>• The role of industrial microbiology to synthesize products valuable to human beings which have profoundly change lives and life spans of individuals.</li> <li>• The study of the interaction between the immune system and other systems of the body or the microbiome, in several diseases with important clinical correlations.</li> <li>• Application of these correlations to immune-mediated pathologies, types of immunotherapies and new ways to explore</li> </ul>
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*S. Chakrabarty*  
**HEAD**  
**DEPT OF MICROBIOLOGY**  
**Sammilani Mahavidyalaya**  
**E.M. Bypass, Baghajatin**  
**Kolkata-700094**

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**Principal**  
**Sammilani Mahavidyalaya**  
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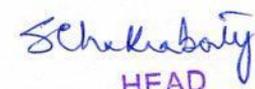
	CC-11: Food and Dairy Microbiology	<ul style="list-style-type: none"> <li>• Unit 1 Foods as a substrate for microorganisms</li> <li>• Unit 2 Microbial spoilage of various foods</li> <li>• Unit 3 Principles and methods of food preservation</li> <li>• Unit 4 Fermented foods</li> <li>• Unit 5 Food borne diseases (causative agents, foods involved, symptoms and preventive measures)</li> <li>• Unit 6 Food sanitation and control</li> <li>• Unit 7 Cultural and rapid detection methods of food borne pathogens in foods and introduction to predictive microbiology</li> </ul>	<p>and manipulate the immune system for benefit of human beings.</p> <p>The objectives of these parts of the curriculum are:</p> <ul style="list-style-type: none"> <li>• Understanding the role of microbes in improving global economic, social, and environmental sustainability.</li> <li>• Understanding of Microbial physiology as structure–function relationships in microorganisms, especially how microbes respond to their environment.</li> <li>• Study of Microbial physiology and metabolism as sources information of energy and its utilization by microorganisms.</li> <li>• Role of microorganisms in environment as producers, consumers and decomposers.</li> <li>• Understanding microbial physiology has greater application in industry, developing medicine and even in agriculture.</li> </ul>
	DSE-A A1. Microbial Biotechnology	<ul style="list-style-type: none"> <li>• Unit 2 Therapeutic and Industrial Biotechnology</li> </ul>	
	CC-13: Immunology	<ul style="list-style-type: none"> <li>• Unit 7 Generation of Immune Response</li> <li>• Unit 8 Immunological Disorders and Tumor Immunity</li> <li>• Unit 9 Immunological Techniques</li> </ul>	

  
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**DEPT OF MICROBIOLOGY**  
**Sammilani Mahavidyalaya**  
**E.M. By Pass, Baghajatin**  
**Kolkata-700094**

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<b>Environment And sustainability</b>	CC-6: Microbial Physiology and Metabolism	<ul style="list-style-type: none"> <li>• Unit 1 Microbial Growth and Effect of Environment on Microbial Growth</li> <li>• Unit 2 Nutrient uptake and Transport</li> <li>• Unit 3 Chemoheterotrophic Metabolism - Aerobic Respiration</li> <li>• Unit 4 Chemoheterotrophic Metabolism- Anaerobic respiration and fermentation</li> <li>• Unit 5 Chemolithotrophic and Phototrophic Metabolism</li> <li>• Unit 6 Nitrogen Metabolism - an overview</li> </ul>	<ul style="list-style-type: none"> <li>• The importance of environmental microbiology continues to grow as new microorganisms continue to emerge in different environmental sources.</li> <li>• The quality control of air, water, and land are among the most important aspects of environmental microbiology which directly affects the health of all living beings.</li> <li>• The role of microorganisms in environmental sustainability is their ability to recycle the primary elements that make up all living systems, especially carbon, oxygen, and nitrogen (N). Primary production involves photosynthetic organisms which take up CO<sub>2</sub> from the atmosphere and convert it to organic (cellular) material.</li> <li>• Role of Microbial biotechnology on the utilization of living organisms for human benefit with applications in baking brewing, diagnostics and drugs, clean energy, specialty chemicals, and the human microbiome project.</li> </ul>
	CC-9: Environmental Microbiology	<ul style="list-style-type: none"> <li>• Unit 1 Microorganisms and their Habitats</li> <li>• Unit 2 Microbial Interactions</li> <li>• Unit 3 Biogeochemical Cycling</li> <li>• Unit 4 Waste Management</li> <li>• Unit 5 Microbial Bioremediation</li> <li>• Unit 6 Water Potability</li> </ul>	
	SEC-B B2. Microbiological Analysis of Air and Water	<ul style="list-style-type: none"> <li>• Unit 1 Aeromicrobiology</li> <li>• Unit 2 Air Sample Collection and Analysis</li> <li>• Unit 3 Control Measures</li> <li>• Unit 4 Water Microbiology</li> <li>• Unit 5 Microbiological Analysis of Water</li> </ul>	
	DSE-A A1. Microbial Biotechnology	<ul style="list-style-type: none"> <li>• Unit 4 Microbial Products and their Recovery</li> <li>• Unit 5 Microbes for Bio-energy and Environment</li> </ul>	

  
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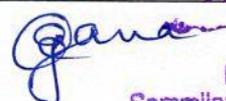
  
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 DEPT OF MICROBIOLOGY  
 Sammilani Mahavidyalaya  
 E.M. By Pass, Baghajatin  
 Kolkata-700094

# PHYSICS DEPARTMENT

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics gender human values, environment and sustainability in transacting the curriculum:

Cross-cutting relevant to	Courses offered to address the cross cutting issues [Sem-programme-course code-course name	Relevant unit and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS			
GENDER			
HUMAN VALUES			
ENVIRONMENT			
SUSTAINABILITY	Fossil fuels and Alternate Sources of energy	1)Discussing limitation of fossil fuels 2)Discussing several non conventional energy like Ocean shore, tidal energy, wind energy ,ocean thermal energy	Limitation of fossil fuel and effect on world environment and there sustainable replacement by several renewable energy or non conventional energy like ocean shore , wind energy, solar energy ,tidal energy ,ocean-thermal energy , biomass ,biochemical conversion.
	Solar energy	1) Discussing importance of solar energy 2)storage of solar energy 3)Application of solar pond ,solar water heater ,solar cooker, pv system, flat plate collector	Learn several solar application like solar pond, solar cooker, solar water heater ,flat plate collector.
	Wind Energy harvesting	Discussing fundamental of wind energy, wind turbine, and different electrical machine power electronic interface grid ,grid interconnection topology	Wind energy production and device and several other machine

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Sammilani Mahavidyalaya  
E.M.Bypass, Baghaja  
Kolkata-700 094

	Ocean Energy	Discussion ocean energy potential against wind solar and solar wave characteristics and statistics of tide energy and technology	Several device for production of ocean energy and efficiency and power of ocean energy
	Geothermal Energy	Discussion Geothermal Resources, Geothermal Technologies	Several procedure of production of geothermal energy
	Hydro Energy	Discussion Hydro Energy and its production	Several procedure of production of geothermal energy and several device
	Piezoelectric Energy harvesting	Discussion piezoelectric Energy and its production	Several procedure of production of Piezoelectric Energy and several device

Kalpna Saha (Haji)  
Head  
Dept. of Physics.

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DEPT OF PHYSICS  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094

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Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatin  
Kolkata - 700 094

## ZOOLOGY

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem- programme-course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
PROFESSIONAL ETHICS		<p>Unit 3: Production of cloned and transgenic animals: Nuclear Transplantation, Retroviral Method, DNA Microinjection. Applications of transgenic animals: Production of pharmaceuticals, production of donor organs, Knock-out mice.</p> <p>Unit 4: Project report on animal cloning &amp; Application &amp; ethical Issues</p>	This topic integrates the concept of transgenic animals, production of donor organs for human use, using animals and addresses the issues of animal rights and ethics of violation of right to life of other animals just for sacrificing for human requirements at industry and mass levels involving ethical issues of animal use for human benefit
GENDER	SEMESTER 5 CORE COURSE12. Principle of Genetics ZOOA-CC5-12-TH	<p>Unit 3: Non-disjunction of Human Chromosome 21</p> <p>Unit 4: Sex Determination 8 Mechanisms of sex determination in man; Dosage compensation in Human</p>	The topic addresses to the aspect of social gender discrimination, scientific understanding of so called "abnormal genders" in the eyes of society It's essentially important for addressing the issue of fetal infanticide, specifically the girl child and reverberates with the "Beti banchao" slogan of the government. It also addresses gender discrimination, women's' rights etc
HUMAN VALUES	SEMESTER 2 CORE COURSE 4: Cell Biology ZOOA-CC2-4-TH	<p>.Unit 2: Sex linkage in Human (Haemophilia)</p> <p>Unit 6 1. Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras</p>	These topics can be considered to be indirectly linked to human values of cooperation, tolerance, affection, support and helping others in need .... all basic proponents of the human value system involving exploitation of

*Debarshi Nayak*  
Head, Department of Zoology  
Sammilani Mahavidyalaya

*Gan* **ATTESTED**  
Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

	<p>SEMESTER 4 CORE COURSE 9: Animal Physiology: Life Sustaining Systems ZOOA-CC4-9-TH : Life Sustaining Systems Lab; ZOOA-CC4-9-P</p> <p>SEMESTER 5 DSE1. Endocrinology ZOOA-DSE(B)-5-1-TH</p> <p>SEMESTER 5 DSE2. Reproductive Biology ZOOA-DSE(B)-5-2-TH</p> <p>SEMESTER 6 DSE1. Animal Cell Biotechnology ZOOA-DSE(A)-6-1-TH</p>	<p>Unit 3: 1 Blood groups; ABO and Rh factor Determination of ABO Blood group 2. Estimation of hemoglobin using Sahli's haemoglobin meter 3. Identification of blood cells from human blood Demonstration of blood pressure by digital meter</p> <p>Unit 3: 1. Peripheral Endocrine Glands Structure, Hormones and Functions of Thyroid gland, Parathyroid, Adrenal, Pancreas, Ovary and Testis. 2 Disorders of endocrine glands (Diabetes mellitus type I &amp; Type II; Graves' Disease).</p> <p>Unit 4: Bioassays of hormones using RIA &amp; ELISA, menstrual cycle in human</p> <p>Unit 3: 1.pregnancy diagnosis, feto-maternal relationship; 2.Mechanism of parturition and its hormonal regulation; Lactation and its regulation Unit 4: 1. Reproductive Health Infertility in male and female: causes, diagnosis and management, 2.Assisted Reproductive Technology: sperm banks, frozen embryos, in vitro fertilization IVF &amp; IUI 3.Modern contraceptive technologies</p> <p>Unit 2: , DNA Fingerprinting,</p> <p>Unit 4: 1.Molecular diagnosis of</p>	<p>trust and faith due to issues involved with molecular as well as behavioral sciences. These topics help to fight against social and cultural taboos involving diseases like Hemophilia, specifically those taboos arising out of ignorance of the cause of the situation or disease. Blood group genetics hammer at the base of the Caste system discrimination. Different social taboos, issues and psychological as well as physical tortures can be avoided with proper understanding of the endocrinological pathways, Fetal infanticide , transgender issues as well as endocrinological disorders</p> <p>It is also important with aspect of proper knowledge to suppresses sex related crimes against women empowerment education, fight against child marriage , Development of understanding against taboos of menstrual cycle, sex education , reproductive health as well as the prevention of atrocities against issues involving childlessness. The units also cater to as aspect of modern lifestyle diseases and disruption of normal biological cycles bringing in loss and abuse of human value systems</p>
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*Sanku Ray*  
Head, Department of Zoology  
Sammilani Mahavidyalaya

*Gana* **ATTESTED**  
Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata - 700 094

	<p>SEMESTER 6 DSE1. Animal Behavior and Chronobiology ZOOA-DSE(B)-6-1-TH ZOOA-DSE(A)-6-1-P</p> <p>SEMESTER 6 CORE COURSE 14.Evolutionary Biology ZOOA-CC6-14-TH</p>	<p>genetic diseases (Cystic fibrosis, Sickle cell anaemia, Thalassemia).</p> <p>Unit 3 1) Role of melatonin. Biological clock and its adaptive significance 2. .Study of circadian functions in humans (daily eating, sleep and temperature patterns</p> <p>Unit 6 Origin and Evolution of Man,</p>	
ENVIRONMENT	<p>SEMESTER 5 CORE COURSE11. Ecology</p> <p>Ecology Lab, ZOOA-CC5-11-P</p>	<p>Unit 1: The Biosphere. Unit 3 Eco tone and edge effect; Ecological succession</p> <p>Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/ any place of ecological interest/ ecological uniqueness/ Zoological garden</p>	<p>These topics integrate with the aspect of Ecological study and aware ness of importance of ecosystem and environment, its components, and promote knowledge &amp; understanding of the need for prevention of deforestation and habitat loss, global; warming, climate change and its impacts</p>
SUSTAINABILITY	<p>SEMESTER 5 CORE COURSE11. Ecology</p>	<p>Unit 2 Unitary and Modular populations Unique and group attributes of population: Demographic factors, life tables, fecundity tables, survivorship curves, dispersal and dispersion. Geometric, exponential and logistic growth, equation and patterns, r and K strategies Population regulation</p> <p>Unit 5 Types &amp; level of biodiversity Mega-diversity countries, Biodiversity Hot spot, Flagship species, Keystone species, Wildlife Conservation (in situ and ex situ conservation), concept of protected areas. Red data book, Indian wild life act &amp; Schedule. Concept of corridor, advantages and problems of corridor.</p>	<p>These topics instinctively integrate with sustainable development, population control, and demographic studies involving population explosion and socio economic aspects of the Indian economic system and growth.</p> <p>It is also associated with sustainable development and judicious exploitation of natural resources, conservation strategies and their applications, outputs and defines parameters for future programs</p> <p>It is also integrated with sustainable exploitation and development of the marine and freshwater resources involving fish and fisheries, sustainable development prompting advanced aquaculture and apiculture</p>

*Debarshi Nay*  
Head, Department of Zoology  
Sammilani Mahavidyalaya

*Gan* **ATTESTED**  
Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
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	<p>SEMESTER 6 DSE2. Fish and Fisheries ZOOA-DSE(B)-6-2-TH</p>	<p>Threats to survival and conservation strategies for Tiger, Olive ridley, White Rumped Vulture</p> <p>Unit 3: Inland Fisheries; Marine Fisheries; Fishing crafts and Gears; Depletion of fisheries resources; Application of remote sensing and GIS in fisheries; Fisheries law and regulation</p> <p>Unit 4 Extensive, semi-intensive and intensive culture of fish; Pen and cage culture; Polyculture; Composite fish culture; Brood stock management; Induced breeding of fish; Management of finfish hatcheries; Preparation and maintenance of fish aquarium; Preparation of compound diets for fish; Role of water quality in aquaculture; Fish diseases: Bacterial, viral and parasitic; Preservation and processing of harvested fish, Fishery by-product</p> <p>Unit 5: Transgenic fish Zebra fish as a model organism in research</p> <p>Unit 2 Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth box Bee Pasturage Selection of Bee Species for Apiculture Modern Bee Keeping Equipment Methods of Extraction of Honey (Indigenous and Modern</p> <p>Unit 4: Products of Apiculture Industry and its Uses – Honey, Bees Wax, Propolis, Pollen etc.</p> <p>Unit 5 Bee Keeping Industry – Recent Efforts, Modern</p>	<p>practices and boost economic development.</p>
	<p>SEMESTER 3 SEC-1 Apiculture ZOOA-SEC(A)-3-1-TH</p>	<p>Unit 2 Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth box Bee Pasturage Selection of Bee Species for Apiculture Modern Bee Keeping Equipment Methods of Extraction of Honey (Indigenous and Modern</p> <p>Unit 4: Products of Apiculture Industry and its Uses – Honey, Bees Wax, Propolis, Pollen etc.</p> <p>Unit 5 Bee Keeping Industry – Recent Efforts, Modern</p>	

  
Head, Department of Zoology  
Sammilani Mahavidyalaya

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Principal  
Sammilani Mahavidyalaya  
E.M.Bypass, Baghajatin  
Kolkata-700 094

		Methods in employing artificial Beehives for cross pollination in horticultural gardens	
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*Debarshi Ray*

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Head, Department of Zoology  
Sammilani Mahavidyalaya

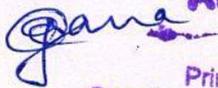
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E.M.Bypass, Baghajatin  
Kolkata - 700 094

**COMMERCE**

## DEPARTMENT OF COMMERCE

1.3.1 Institution integrates cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability in transacting the curriculum:

Cross cutting issues relevant to	Courses offered to address the cross cutting issues (Sem-programme-course code-course name )	Relevant Units and topics integrating the cross cutting issues	Integration and outcome
<b>PROFESSIONAL ETHICS</b>	SEM I - B. Com.- CC1.1Ch & CC1.1Cg <i>Financial Accounting I</i>	<b>Unit 3: Introduction to Accounting Standard:</b> Financial accounting standards: concept, benefits, procedure for issuing accounting standards in India. Need for a global standard, IFRS (concept only).	The College being affiliated to Calcutta University, follows the curriculum prescribed by the University. It has no scope for designing its own curriculum. The Department of Commerce, however, sincerely endeavours to inculcate among the students the prime values pertaining to gender sensitization, environmental awareness, human rights, and professional ethics, taking cues from related topics in the University curriculum, wherever possible.
	SEM II - B. Com.- CC2.1Chg <i>E-Commerce &amp; Business Communication</i> Module I: E-Commerce	<b>Unit 1: Introduction:</b> e-Governance [meaning, types, significance, real life examples].	
	SEM III - B. Com.- CC3.1Chg <i>Information Technology &amp; Its Application in Business</i> Module I: Theory	<b>Unit 3: Internet and Its Applications</b> Ethical issues in Social Networking.	
	SEM III - B. Com.- CC3.2Ch <i>Indian Financial System</i>	<b>Unit 5: Investors' Protection</b> Concept of investors' protection; Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism; Role of SEBI, judiciary and the media.	

  
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	<p><b>SEM IV - B. Com.- CC4.1Chg Entrepreneurship Development &amp; Business Ethics Module II: Business Ethics</b></p>	<p><b>Unit 1: Business Ethics</b> Introduction – Meaning - Scope – Types of Ethics – features – Factors influencing Business Ethics – significance of Business Ethics - Arguments for and against business ethics- Basics of business ethics - Corporate Social Responsibility and Business Ethics</p> <p><b>Unit 2: Principles of Business Ethics</b> Introduction – Meaning – Element – Ethics, Morale, Business ethics, Ethical dilemma [basic idea, features and significance of each of element]</p> <p><b>Unit 3: Ethics in Management</b> Introduction – Ethics in HRM – Ethics in Marketing — Ethics in Accounting and finance - Work place Ethics - Value and Ethics.</p> <p><b>Unit 4: Corporate Culture</b> Meaning – Role – Functions – Impact of Corporate Culture – Globalization and cross culture issues in ethics, Corporate Code of ethics</p> <p><b>Unit 5: Ethics &amp; Corporate Governance</b> Concept of Corporate Governance, Scope, Reports on Corporate Governance and its benefits and limitations-- Corporate Governance and Business Ethics [Brief Concept]</p>	<p>Several issues like formulation of national accounting standards and harmonizing those with global ones (with an eye on curbing fraudulence); strict implementation of e-governance measures for e- commerce platforms and service providers; creating awareness on ethical issues regarding social networking; knowledge of the means of prevention of cheating of investors and protecting their interest and rights; independence of auditors towards detection and prevention of fraud; are examples of issues covered by the syllabi and taught elaborately.</p>
	<p><b>SEM V - B. Com.- CC5.1Ch &amp; CC5.1Cg Auditing &amp; Assurance</b></p>	<p><b>UNIT – I CONCEPT, NEED AND PURPOSE OF AUDIT</b> Definition-Nature-Scope and Objectives of Independent Financial Audit Basic Principles Governing an Audit, Concept of Auditor’s Independence Errors and Fraud-Concepts, Means of doing Fraud, Auditor’s Responsibility towards Detection and Prevention of Fraud, Difference between Audit and Investigation</p>	<p>Apart from all these, there is a separate module on business ethics and corporate governance.</p>

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GENDER	---	---	Though there is no gender related issue expressly mentioned as such in the UG Commerce syllabi, in course of pedagogy, the teachers touch upon gender sensitisation whenever felt necessary.
HUMAN VALUES	SEM I - B. Com.- CC1.2Chg - <i>Principles of Management</i>	<p><b>Unit 4: Directing and Staffing:</b> Directing: concepts, importance of directing, Leadership: Concept, importance, types, leadership traits, Tannenbaum &amp; Schmidt's Model, and Blake &amp; Mouton's Model. Staffing: concepts, importance</p> <p><b>Unit 5: Motivation, Co-ordination and Control:</b> Motivation: Concept, importance, importance of need theory, and contributions of McGregor, Maslow, Herzberg.</p>	Human values and rights are also taken adequate care of through modules containing concepts and ideas of fair recruitment and proper training of staff, motivating them through exemplary leadership; maintaining a healthy and humane atmosphere in the organisation by removing all barriers to free and effective communication, and applying appropriate tools
	SEM II - B. Com.- CC2.1Chg <i>E-Commerce &amp; Business Communication</i> <i>Module II: Business Communication</i>	<p><b>Unit 1: Introduction:</b> Definition, objectives, importance, elements, process, forms, models, principles of effective communication, barriers to communication and remedial measures, role of communication in conflict resolution</p>	

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	<p>SEM II - B. Com.- CC2.2Chg <b>Marketing Management and Human Resource Management</b> Module II: Human Resource Management</p>	<p><b>Unit 1: Nature and Scope</b> Concept and meaning of HR, Understanding the Nature and Scope of HRM, Functions and importance.</p> <p><b>Unit 2: Human Resource Planning</b> Definition, Need and Features of Human Resource Planning, factors affecting Human Resource Planning.</p> <p><b>Unit 3: Recruitment and Selection</b> Definition of Recruitment, Source, need and importance of Recruitment, Recruitment Policy – process – sources of Recruitment Definition of Selection, Steps in selection.</p> <p><b>Unit 4: Training and Development</b> Training and Development Meaning and purpose of training, Benefits of training to organisation and employees -Training methods.</p> <p><b>Unit 5: Job Evaluation and Performance Appraisal</b> Job evaluation - objectives, scope, method, Job analysis, Job description, Job Specification - basic concept and significance, Performance Appraisal - Concept</p>	<p>to resolve interpersonal conflicts.</p> <p>There is an entire module dedicated to disseminating essential knowledge about transcending employees into human resource and how to formulate policies accordingly. Students are made aware that every human being is a resource. Looking beyond the periphery of an enterprise, the outlook of the students are broadened when they get to study the living conditions of the citizens of the nation --- the perils of unemployment and poverty and what policies to be adopted for alleviation.</p>
	<p>SEM IV - B. Com.- GE4.1Chg <b>Microeconomics &amp; Indian Economy</b> Module II: Indian Economy</p>	<p><b>Unit 4: Social Issues in Indian Economy</b> Problem of Poverty, Poverty alleviation measures; Problem of Unemployment and the policy measures.</p>	
<p><b>ENVIRONMENT &amp; SUSTAINABILITY</b></p>	<p>SEM II - B. Com.- CC2.2Chg <b>Marketing Management and Human Resource Management</b> Module I:</p>	<p><b>Unit 5: Promotion and Recent developments in marketing:</b> Green marketing</p>	<p>In order to make the students conscious about maintaining a pollution-free and sustainable environment, they are also imparted with the</p>

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<p>noble ideas about launching and promoting goods in the market which are environment-friendly.</p> <p>The Department always strives to transform its students into honest, sincere, humane, sufficiently aware and responsible global citizens.</p>		<p>Marketing Management</p>	
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Sammilani Mahavidyalaya  
E.M. Bypass, Baghajatin  
Kolkata - 700 094



Utam Kumar Ghosh

Sd/- 

Head,  
Department of Commerce

09-11-2023

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DEPT OF COMMERCE  
Sammilani Mahavidyalaya  
E.M. By Pass, Baghajatin  
Kolkata-700094