Shri Swami Vivekanand Shikshan Sanstha

Vivekanand College, Kolhapur (Autonomous)

Department of Chemistry

Curriculum relevance: Course contents with cross-cutting issues (UG) 2018-19 to 2023-24 modified

Sr. No.	Course Code	Course / SECs Titles	Year of Introduction	Professional Ethics	Gender	Human Values	Environment and Sustainability	Sustainable Development goals	NEP-2020
B. Sc. Chemistry (Newly Introduced Between 2018-19 and 2020-21)									
1.	**DSC-1002A**	**Section-I** Inorganic Chemistry **Section-II** Organic Chemistry	**2018-19**			The syllabus can include discussions on the humanitarian applications of chemistry, such as the development of chemicals.	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	
2.	**DSC-1002B**	**Section-I** Physical Chemistry **Section-II** Analytical & Industrial Chemistry	**2018-19**	Cover the basics of Analytical & Industrial Chemistry.		Promote a deep respect for life and the environment.	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	
3.	**DSC-1002C**	**Section-I** Physical Chemistry **Section-II** Analytical & Industrial Chemistry	**2019-20**	Cover the basics of Analytical & Industrial Chemistry.		-	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	

4.	**SEC-SD**	Basics in Chemistry	**2019-20**	-	-	-	Sustainable practices should be integrated into laboratory work.	-	Emphasizes hands-on, practical learning.
5.	**DSC-1002D**	**Section-I** Inorganic Chemistry **Section-II** Organic Chemistry	**2019-20**	Highlights contributions of different aspects of chemistry and discusses the importance of diverse perspectives in the chemical fields.	Creating an inclusive learning environment and perspectives of all students, regardless of gender.	Promote a deep respect for life and the environment		Highlighting some chemical aspects to the improvement of human well-being.	Encourages interdisciplinary learning such as biomolecules, carbohydrates, amino acids, and proteins.
6.	**SEC-SD**	Basics in Chemistry	**2019-20**	-	-	-	-Sustainable practices should be integrated into laboratory work.	-	Emphasizes hands-on, practical learning.
7.	**DSC-1002E1**	**Section-I** Physical Chemistry **Section-II** Inorganic Chemistry	**2020-21**	.	Addressing disparities in opportunities, representation, and recognition in various fields of chemistry		Discussing the environmental impact of chemical technologies.	Highlighting some chemical aspects to the improvement of human well-being.	Provide students with an understanding of the international context of chemistry.
8.	**DSC-1002E2**	**Section-I** Organic Chemistry **Section-II** Analytical Chemistry	**2020-21**	Professional ethics in the fields of organic and analytical chemistry guide researchers, scientists, and practitioners in conducting their work with integrity, responsibility, and consideration for societal impact		Integrating aspects of social responsibility and understanding of the societal implications of chemicals and chemical processes.	Mindful of the environmental impact including the use of hazardous materials, waste generation, and the energy consumption associated with experiments.	Involves focusing study on areas related to clean energy, water quality, and health.	Provide students with an understanding of the international context of chemistry.
9.	**SEC-SE**	Basic Analytical Chemistry	**2020-21**	Contribute to the credibility of scientific research, the safety of laboratory practices,	Provide opportunities for all students, regardless of		Sustainable practices should be integrated into laboratory work.	Involves focusing study on areas related to clean	Emphasizes hands-on, practical learning.

				and the responsible application of analytical techniques.	gender, to actively engage in class discussions, group projects, and laboratory work.			energy, water quality, health.	
10.	**DSC-1002F1**	**Section-I** Physical Chemistry **Section-II** Inorganic Chemistry	**2020-21**	Contribute to the responsible advancement of knowledge, and the ethical development of physical and inorganic chemistry including quantum technology, spectroscopy solid state chemistry etc.	Highlight the achievements of women and other underrepresented groups in the field especially in nuclear chemistry.			Involves focusing study on areas related to clean energy, water quality, health.	To provide a holistic and multidisciplinary education, including issues like integrating technology into education and promoting research and innovation.
11.	**DSC-1002F2**	**Section-I** Organic Spectroscopic Techniques **Section-II** Industrial Chemistry	**2020-21**	Professional ethics in the fields of organic and industrial chemistry guide researchers, scientists, and practitioners in conducting their work with integrity, responsibility, and consideration for		Discussions on the development of sustainable technologies, ethical considerations in pharmaceuticals, and the responsible use of chemicals contribute to students' awareness of their role in society.		Involves focusing study on areas related to clean energy, water quality, and health.	Stimulate students through critical thinking, and problem-solving
12.	**SEC-SF**	Project work and industrial study tour	**2020-21**	Individuals engaged in project work or industrial study tours in chemistry contribute to a positive and respectful learning	Provide opportunities for all students, regardless of gender, to actively engage	Group projects and discussions on the importance of working together contribute to the	Sustainable practices should be integrated into laboratory work.	Involves focusing study on areas related to clean energy, water quality, health.	Emphasizes hands-on, practical learning.

				environment, ensuring the responsible application of chemical knowledge in both academic and industrial settings.	in class discussions, group projects, and laboratory work.	development of interpersonal skills and a sense of community.			
	B. Sc. Chemistry (Revised I Between 2021-22 and 2023-24)								
1.	**DSC-1002A**	**Section-I** Inorganic Chemistry **Section-II** Organic Chemistry	**2021-22**		Creating an inclusive learning environment and perspectives of all students, regardless of gender.	The syllabus can include discussions on the humanitarian applications of chemistry, such as the development of chemicals.	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	
2.	**DSC-1002B**	**Section-I** Physical Chemistry **Section-II** Analytical & Industrial Chemistry	**2021-22**		Creating an inclusive learning environment and perspectives of all students, regardless of gender.		The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	
3.	**DSC-1002C**	**Section-I** Physical Chemistry **Section-II** Analytical & Industrial Chemistry	**2021-22**	Cover the basics of Analytical & Industrial Chemistry.	Creating an inclusive learning environment and perspectives of all students, regardless of gender.	-	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	

3.	**DSC-1002C**	**Section-I** Physical Chemistry **Section-II** Analytical & Industrial Chemistry	**2021-22**	Cover the basics of Analytical & Industrial Chemistry.	Creating an inclusive learning environment and perspectives of all students, regardless of gender.	-	The syllabus can include discussions on the applications of clean chemical technologies.	Includes content on the applications of chemistry for clean technologies, and sustainable energy solutions	
4.	**SEC-SD**	Basics in Chemistry	**2021-22**	-	-	-	Sustainable practices should be integrated into laboratory work.	-	Emphasizes hands-on, practical learning.
7.	**DSC-1002E1**	**Section-I** Physical Chemistry **Section-II** Inorganic Chemistry	**2022-23**		Addressing disparities in opportunities, representation, and recognition in various fields of chemistry		Discussing the environmental impact of chemical technologies.	Highlighting some chemical aspects to the improvement of human well-being.	Provide students with an understanding of the international context of chemistry.
8.	**DSC-1002E2**	**Section-I** Organic Chemistry **Section-II** Analytical Chemistry	**2022-23**	Professional ethics in the fields of organic and analytical chemistry guide researchers, scientists, and practitioners in conducting their work with integrity, responsibility, and consideration for societal impact	Addressing disparities in opportunities, representation, and recognition in various fields of chemistry	Integrating aspects of social responsibility and understanding of the societal implications of chemicals and chemical processes.	Mindful of the environmental impact including the use of hazardous materials, waste generation, and the energy consumption associated with experiments.	Involves focusing study on areas related to clean energy, water quality, and health.	Provide students with an understanding of the international context of chemistry.
9.	**SEC-SE**	Basic Analytical Chemistry	**2022-23**	Contribute to the credibility of scientific research, the safety of laboratory practices, and the responsible application of analytical techniques.	Provide opportunities for all students, regardless of gender, to actively engage in class		Sustainable practices should be integrated into laboratory work.	Involves focusing study on areas related to clean energy, water quality, health.	Emphasizes hands-on, practical learning.

					discussions, group projects, and laboratory work.				
7.	**DSC-1002E1**	**Section-I** Physical Chemistry **Section-II** Inorganic Chemistry	**2022-23**		Addressing disparities in opportunities, representation, and recognition in various fields of chemistry		Discussing the environmental impact of chemical technologies.	Highlighting some chemical aspects to the improvement of human well-being.	Provide students with an understanding of the international context of chemistry.
8.	**DSC-1002E2**	**Section-I** Organic Spectroscopic Techniques **Section-II** Analytical Chemistry	**2022-23**	Professional ethics in the fields of organic and analytical chemistry guide researchers, scientists, and practitioners in conducting their work with integrity, responsibility, and consideration for societal impact	Addressing disparities in opportunities, representation, and recognition in various fields of chemistry	Integrating aspects of social responsibility and understanding of the societal implications of chemicals and chemical processes.	Mindful of the environmental impact including the use of hazardous materials, waste generation, and the energy consumption associated with experiments.	Involves focusing study on areas related to clean energy, water quality, and health.	Provide students with an understanding of the international context of chemistry.
10.	**DSC-1002F1**	**Section-I** Physical Chemistry **Section-II** Inorganic Chemistry	**2023-24**	Contribute to the responsible advancement of knowledge, and the ethical development of physical and inorganic chemistry including quantum technology, spectroscopy solid state chemistry etc.	Highlight the achievements of women and other underrepresented groups in the field especially in nuclear chemistry.			Involves focusing study on areas related to clean energy, water quality, health.	To provide a holistic and multidisciplinary education, including issues like integrating technology into education and promoting research and innovation.
11.	**DSC-1002F2**	**Section-I** Organic Chemistry **Section-II**	**2023-24**	Professional ethics in the fields of organic and industrial chemistry guide researchers, scientists,	-	Discussions on the development of sustainable technologies, ethical		Involves focusing study on areas related to clean energy, water quality, and health.	Stimulate students through critical thinking, and problem-solving

		Industrial Chemistry		and practitioners in conducting their work with integrity, responsibility, and consideration for		considerations in pharmaceuticals, and the responsible use of chemicals contribute to students' awareness of their role in society.			
12.	**SEC-SF**	Project work and industrial study tour	**2023-24**	Individuals engaged in project work or industrial study tours in chemistry contribute to a positive and respectful learning environment, ensuring the responsible application of chemical knowledge in both academic and industrial settings.	Provide opportunities for all students, regardless of gender, to actively engage in class discussions, group projects, and laboratory work.	Group projects and discussions on the importance of working together contribute to the development of interpersonal skills and a sense of community.	Sustainable practices should be integrated into laboratory work.	Involves focusing study on areas related to clean energy, water quality, health.	Emphasizes hands-on, practical learning.

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

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