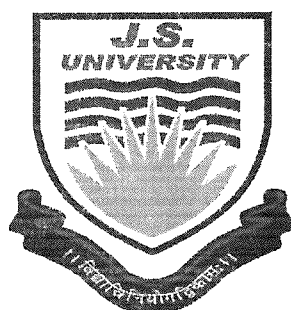


J.S. University, Shikohabad

Established by UP Govt. Act No. 07 of 2015

Recognized by U.G.C. under section 2 (f) of Act-1956



Value Added Course
(GREEN CHEMISTRY)
(Course Code: VAC-030)

Department of Chemistry



**J.S. University, Shikohabad
Department of Chemistry**

Value Added Course

AY:2018-2019

GREEN CHEMISTRY (VAC:030)

Learning Objective:

This Course will provide knowledge of ecological applications


Duration: 30 Hours.

Course Outcomes: -

After completion of the course the student shall be able to:-

CO-1 Evaluate the effect and phenomenon of environment in human life.

CO-2 Impact of greenhouse gases on environment.

	J.S. University, Shikohabad Department of Chemistry	Value Added Course
		AY:2018-2019

Syllabus Objective

GREEN CHEMISTRY

30 Hours

Unit I

15 Hours

Introduction: Definitions of Green Chemistry. Brief introduction of twelve principles of Green Chemistry, with examples, special emphasis on atom economy, reducing toxicity, green solvents, Green Chemistry and catalysis and alternative sources of energy, Green energy and sustainability Surfactants for carbon dioxide – Replacing smog producing and ozone depleting solvents.

Unit II

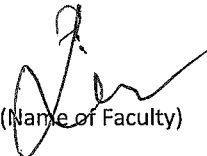
15 Hours

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

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

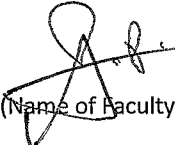
Books Recommended:

1. Anastas, P.T. & Warner, J.K. Green Chemistry- Theory and Practical, Oxford University Press (1998).
2. Matlack, A.S. Introduction to Green Chemistry, Marcel Dekker (2001).
3. Sharma, R.K.; Sidhwani, I.T. & Chaudhari, M.K. Green Chemistry Experiments


(Name of Faculty)

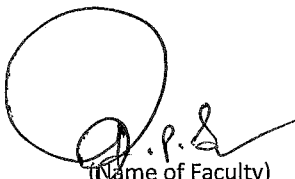
Course Coordinator

Dr. Pushpa


(Name of Faculty)

Dean Academics

Dr. P. P. Singh


(Name of Faculty)

Director/Principle/Dean
of Faculty/Department

Dr. B. P. Chatter