



Department of Chemistry
Keral Verma Subharti College of Science
SWAMI VIVEKANAND SUBHARTI UNIVERSITY

(Established under U.P. Govt. Act no. 29 of 2008 and approved under section 2(i) of UGC Act 1956)
Ph. 0121-2439576, 2439052, 3058031, 3050032; Telefax: 0121



Ref. No. KVSCOS/2018/

Date: 03-02-2018

NOTICE

It's to inform all students of UG and PG that the Department of Chemistry, KVSCOS introduced Value Added Course form 09-02-2018. The topics are as follows

- Pesticide Chemistry
- Green Methods in Chemistry

Interested students give their name to HOD Chemistry, KVSCOS.

Dr. Shraddha Upadhyaya

HOD, Chemistry Department

Registrar
Swami Vivekanand
Subharti University
MEERUT



Course Name: Green Methods in Chemistry
Course Code: VAC-C-005
Course Coordinator: Dr R. Kumar
Designation: Assistant Professor
Contact no.: 9956517241
Duration: 09-02-2018 to 31-05-2018

The objective of the program

Green chemistry means using principles that reduce or eliminate the need for or production of dangerous substances in the design, manufacture and use of chemical products. The concept of green chemistry has significant public, academic and private industry support. The trend toward green chemistry also has created a number of new jobs and new job titles. Undertaking research to discover more benign alternatives to the many thousands of hazardous chemicals used in modern refining and manufacturing processes is one of the primary goals of green chemistry. Hundreds of research chemists are employed in green chemistry. They conduct research in many areas, including safer and less-polluting industrial solvents and plant-based substitutes for petrochemical products.

REGISTRATION FORM

Name:.....

Enrolment No......

Program:.....

Sem. & Year.....

Contact No./Mobile:.....

E-mail:.....

Course Opted:.....

Course Code:.....

Signature with date:.....

Contact Person (Course Coordinator)

Course Name: Green Methods in Chemistry
Course Code: VAC-C-005
Course Coordinator: Dr R. Kumar
Designation: Assistant Professor
Contact no.: 9956517241

Course Schedule

Duration: 09-02-2018 to 31-05-2018

Green Methods in Chemistry

VAC-C-005

Objectives: To familiarize the students with the concept and principles of green chemistry and green laboratory techniques.

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

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

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

Course Outcomes	
CO1	Able to understand the theory of green chemistry
CO2	Ability to apply green chemical laboratory techniques.



Registrar
Swami Vivekanand
Subharti University
MEERUT

Reference Books:

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. Cann, M.C. & Connelly, M.E. *Real-World cases in Green Chemistry*, American Chemical Society, Washington (2000).
4. Ryan, M.A. & Tinnesand, M. *Introduction to Green Chemistry*, American Chemical Society, Washington (2002).
5. Sharma, R.K.; Sidhwani, I.T. & Chaudhuri, M.K. *Green Chemistry Experiments: A monograph* I.K. International Publishing House Pvt Ltd. New Delhi, Bangalore.
6. Lancaster, M. *Green Chemistry: An introductory text* RSC publishing, 2nd Edition.
7. Sidhwani, I.T., Saini, G., Chowdhury, S., Garg, D., Malvika, Garg, N. Wealth from waste: A green method to produce biodiesel from waste cooking oil and generation of useful products from waste further generated "A Social Awareness Project", Delhi

University Journal of Undergraduate Research and Innovation, 1(1): 2015.



KERAL VERMA SUBHARTI COLLEGE OF SCIENCE

SWAMI VIVEKANAND SUBHARTI UNIVERSITY
Subhartipuram, NH-58 Delhi-Haridwar-Meerut Bypass Road,
Meerut -250005

Department of Chemistry

Report on Value Added Course

A value added course on “**Green Methods in Chemistry**” was conducted in Chemistry department for **First** year students, Two hour per week. The course starts on **9-02-2018**. The session was handled by **Dr R. Kumar** Chemistry on the need for **Green Methods used in Chemistry**. On that session students learnt how to reduce the use of chemical in the chemistry and how to minimize the pollution which is created by the overuse of chemical. Students felt that this value added session on **Green Methods in Chemistry** was very much useful for them and they got the basic idea for minimization and effective use of chemical. It is planned to extend this value added training in the next semester with having more expert lecture on green methods used in chemistry and environmental friendly reaction media.

HOD

Srsaddha

(Department of Chemistry)

