

# V. P. R. P. T. P. Science College, Vallabh Vidyanagar

## Add-on Certificate Courses

**Course Title : MANUFACTURING OF DOMESTIC ITEMS**

**Coordinator : Dr. H.R. Maradiya,**

**Department : Chemistry**

**Duration : 30 Hours (Theory & Practical)**

**Content :**

Practical part-A

- (1) To prepare liquid soap
- (2) To prepare white and black phenyl
- (3) To prepare dish washing powder
- (4) To prepare detergent powder and cake
- (5) To prepare bath soap by semi hot process
- (6) To prepare cold cream
- (7) To prepare potash Alum
- (8) To prepare various ink and saving cream
- (9) To prepare Hand sanitizer hydro alcoholic Gel formulation
- (10) To determine the total alkali present in synthesized detergent and its comparison with commercial detergent
- (11) Qualitative tests for oils and fats.
- (12) To detect the presence of adulteration and hazards in sample of chilli powder, turmeric powder, sugar, fat, ice cream and butter etc.

Theory part-B

- (1) Principle of action of detergent.
- (2) Chemistry and food adulteration
- (3) Food and adulteration and hazards with spot tests

### **Outcomes of the course :**

An undergraduate degree in chemistry/Industrial chemistry/Biology opens a whole host of opportunities in fields. A background in this course provides good training for student interested in careers in small scale manufacturing some domestic products.

This course is very helpful to students in feature. After this course, the students are able to synthesize various domestic items which is very useful in daily lives of human and also provides critical thinking skills and confident important for his own small scale manufacturing unit.

This course is much more interesting for both study and as well as practice. The course is very beneficiary for student to determine adulteration in food materials and methods to test because it affects all of us. From this course, student can learn how water hardness affects cleaning action of soap and detergents. Also the adverse effects of some ingredients in cosmetics/ice cream etc. The small scale manufacturing unit can be establishing to sell their products to customers.

Student can also learned how to calculate costing and sale price of synthesized material.

Reference Book :

- (1) Chemical Technology by C.C. Maheta, Rashikbhai Suthar, J.B. Patel and C.T. Brahmhat. B. S. Shah Publication, Ahmedabad.

- (2) Practical Chemistry by N. K. Verma, B.K. Vermani and K.K. Rehani. Laxmi Publication (p) Ltd, New Delhi.
- (3) Synthetic organic chemistry by Gurdeep R. Chatwal. Himalaya Publishing House.
- (4) Adulteration and its side effect in food by Dr. Bhavna Chauhan, Yogesh Vadvala *et al.*  
Food and nutrition and chemistry department of S.M. Patel college of home science.