

**Shree Manibhai Virani & Smt. Navalben Virani Science College, Rajkot**  
**Autonomous**

**Affiliated to Saurashtra University, Rajkot**  
**OFFERING DEPARTMENT- DEPARTMENT OF BIOCHEMISTRY**

**SEC-III: VALUE ADDED COURSE**

**Any Semester from II to V**

<b>16UBCVA01</b>	<b>Food Adulteration</b>	<b>40 Hrs</b>	<b>1 credit</b>
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**Objective:**

**To enable students to**

- 1) Be aware of adulteration of selected food products through various testing procedures
- 2) Understand the effects of adulterants in food
- 3) Create awareness of food adulteration to consumers.

**Theory:**

1. Introduction- definition, Types of adulteration and detection methods
2. Prevention of Food Adulteration Act.(PFA)
3. Types of Adulterants in spices
4. Types of Adulterants in milk and milk products
5. Types of Adulterants in flour, sugars, oils and food grains
6. Effect of Adulterants on Community Health

**Practicals:**

1. **To detect the presence of adulterants in sugar**
  1. Adulteration of chalk powder, washing soda in sugar
  2. Adulteration of various insoluble substances in sugar
2. **To detect the presence of adulterants in samples of chilli powder**
  1. Adulteration of red lead salts in chilli powder
  2. Adulteration of brick powder in red chilli powder
  3. Adulteration of Oil soluble coal tar colour in red chilli powder.
3. **To detect the presence of adulterants in samples of turmeric powder.**
  1. Adulteration of yellow lead salts to turmeric powder
  2. Adulteration of Chalk or yellow soap stone powder to turmeric powder
  3. Adulteration of Starch of maize, wheat, tapioca, rice to turmeric powder
4. **To detect the presence of adulterants in samples of Asafoetida(Hing).**
  1. Adulteration of Soap stone or other earthy matter in asafoetida
  2. Adulteration of chalk powder in asafoetida.
5. **To detect the presence of adulterants in samples of Coriander powder.**
  1. Adulteration of Dung powder in Coriander powder.
  2. Adulteration of Common salt in Coriander powder.
6. **To detect the presence of adulterants in samples of Milk.**
  1. Adulteration of starch powder in milk.
  2. Adulteration of formalin in milk.
  3. Adulteration of water in milk.
7. **To detect the presence of adulterants in samples of Milk.**
  1. Adulteration of paraffin wax and hydrocarbon in vegetable ghee
  2. Adulteration of argemone oil in edible oils

3. Adulteration of dyes in fat

**8. To detect the presence of kesari dal in red gram dal.**

**9. To detect the presence of poppy seeds/argemone seeds in mustard.**

**1. Reference Books:**

1. Wiley, Harvey Washington Foods and Their Adulteration Rarebooksclub.com

2. Schlink, Frederick John Eat, Drink, and Be Wary: The Problems of Diet and Food Adulteration Literary Licensing, LLC

3. Bruce, E. M. (1917). Detection of the common food adulterants. D. Van Nostrand Company.

4. Hassall, A. H. (1876). Food: its Adulterations, and the Methods for their Detection. Longmans Green.