

**APPLIED CHEMISTRY (BS-ADP 8<sup>th</sup>Semester)**

<b>Module Code:</b>	<b>Chem-475</b>
<b>Module title:</b>	<b>Textile Industries</b>
<b>Name of Scheme:</b>	<b>BS-ADP 8<sup>th</sup>Semester</b>
<b>Department:</b>	<b>School of Chemistry</b>
<b>Faculty:</b>	<b>Science</b>
<b>Module Type:</b>	<b>Compulsory</b>
<b>Module Rating:</b>	<b>2 credits</b>

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**OBJECTIVES**

Students will learn about the Textile processing; Synthesis of Fibers, finishing of fibers and dyeing of fibers. They will also learn about the synthesis to textile dyes.

**SYLLABUS OUTLINE:**

1. **Textile Fibers:**  
Classification of textile fibres, sources and properties of natural fibres, chemistry and manufacturing of Viscose rayon, Cellulose Acetate, Nylons and Polyesters and conversion to fibres, Finishing processes for 100% cotton fabrics such as singeing, desizing, scouring, mercerizing and bleaching
2. **Textile Dyeing:**  
Color and chemical constitution, Important classes of chromogens, Classification and nomenclature of dyes, manufacturing of dye intermediates and dyes, Selection of dyes for wool, cellulosic and synthetic fibers, Application methods of dyes to wool and cellulosic fibers.

**RECOMMENDED BOOKS:**

1. Applied Chemistry, Haq Nawaz Bhatti and Muhammad Salman, 2017, Caravan Book Publisher, Pakistan.
2. Dyes and Dyeing, C.E. Pellow, Abhishek Publishers, 1998.
3. Textile Dyes and Pigments, H. Panda, NIIR Publishers.
4. Fibre to fabric, 4<sup>th</sup> Ed, Potter & Corban, McGraw Hill book Company, 1959.
5. Sugar: Science and Technology, G. G. Birch and K.. J. Parker, Applied Science Publishers Ltd., 1979.
6. Principles of Sugar Technology, Pieter Honig Vol I, Elsevier Publishing Company, 1953.