

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.E. SEMESTER : 3**  
**CHEMICAL TECHNOLOGY**

Subject name: **INTRODUCTION TO GLASS & CERAMIC TECHNOLOGY-I**

| <b>Sr. No.</b> | <b>Course contents</b>                                                                                                                                                |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01.</b>     | Chemistry of raw materials used in ceramics industry: Glass, Refractory, White wares, Potteries, Ceramic coatings, Cement concrete. Global & Indian size of Industry. |
| <b>02.</b>     | General & Physical geology, preliminary concepts of geology, petrology of coal & its use.                                                                             |
| <b>03.</b>     | Mineralogy: classification & composition of minerals, physical & optical properties of minerals.                                                                      |

**Reference Books:**

- 1) Elements of ceramics ,Norton F.H, Longman higher education, 2<sup>nd</sup> Ed, 2001
- 2) Introduction to ceramics, Barsoum, Institute Of Physics Publishing (gb) 2002
- 3) Introduction to Ceramics ,Kingery W.D., Wiley New York :, 2<sup>nd</sup> Ed, 1976
- 4) Material Science ,Smith, Mcgraw Hill Higher Education, 4<sup>th</sup> Ed,2005
- 5) Industrial ceramics ,Singer & Singer, , Oxford & Ibh ( From Technip), 1<sup>st</sup> Ed.,2008
- 6) Textbook of physical Geology ,Mukherjee, , CBS Publishers & Distributors-New Delhi 1<sup>st</sup> Ed.,2011
- 7) Textbook of Mineralogy, Tyrrel,W, , CBS Publishers & Distributors, 4<sup>th</sup> Ed.,2006
- 8) Textbook of Geology, J B Mahapatra, CBS Publishers & Distributors, 2<sup>nd</sup> Ed. ,2008