2nd Semester 2023-24

Course Coordinator
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Lectures (D Slot)

Tuesday 9:00 – 10:00 AM
Wednesday 9:00 – 10:00 AM
Friday - 9:00 10:00 AM

Room: LH526

Online platform (for Resources): Moodle

Course Evaluation

Course is divided in two parts:

Part (A) – 50 Marks – Quiz 1+Exam1 (RKS)

Part (B) – 50 Marks – Quiz 2+Exam 2 (BN)

In case of absentia from any quiz or examination, you will NOT be allowed to re-take the quiz or examination.

This will be exempted only if there is a medical emergency. In case of absentia due to medical emergency, you are allowed to take the re-quiz/exam provided you fulfil all three conditions written below:

(a) You have a medical certificate from the institute/approved hospital

(b) Coordinator is informed about the medical status/hospitalization of the student before start of the exam/quiz and the medical certificate is handed over as soon as possible / immediately after rejoining the institute

(c) Your attendance is above 75% (from beginning till the time exam/quiz is conducted)

Attendance Policy

- Attendance will be taken by signatures on attendance sheet at the beginning of the class
- You will not gain or lose any marks/grade if your attendance is above or below 75%.
- You will not be allowed to take any re-quiz/exam if your attendance (from beginning till the time exam/quiz is conducted) is below 75%.
- You will not be shown answer-sheets of quiz/exam if your attendance (from beginning till the time exam/quiz is conducted) is below 50%.

TXL 211 Structure and Physical Properties of Fibers

Course Content

- Polymers
  - Molecular architecture, configuration and conformation, amorphous and crystalline phases, plasticization, crystallization, glass transition and melting, factors affecting Tg and Tm
- Basic structure of fiber
  - Orientation, molecular entanglements, fiber formation in thermoplastic polymers, methods of investigating physical structure of fibers (FTIR, DSC, TGA, DMA/TMA, Birefringence, Sonic Modulus, WAXD, SAXD)
- Moisture absorption, viscoelasticity, mechanical, optical, electrical and thermal properties of fibers

Text Book
Physical Properties of Textile Fibers by Morton and Hearle