

(Textile Engineering Department)

Graduate

Course Title: **Manmade Fiber Technology**

Lecturer: **Dr. Mohammad Reza Mohades Mojtahedi**

Course Topics:

- Molecular structure of fibers, crystallization and orientation
- Methods of measuring crystallinity
- X-ray diffraction patterns
- Measuring crystallinity, crystal size, and orientation factor using XRD
- Methods of synthetic fibers production, melt spinning : direct and extrusion spinning
- Pretreatments of starting materials
- Pretreatment instruments
- Description of melt spinning process for filament yarns production
- Calculations of melt spinning process for filament yarns production
- Preparing machine parts for melt spinning process
- Description of melt spinning process for staple fibers production
- Calculations of melt spinning process for staple fibers production
- Description of production process for loose fibers and tops

Reading Resources:

- Synthetic fibers”, Fourne, “Manufactured fiber technology”, Gupta“