



GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Ref.: GTU/ACAD/DI/2021/2577

Date: 13/05/2021

CIRCULAR

Subject: The Industrial training of Textile Processing Technology branch of Diploma Engineering course.

Diploma in Textile processing Technology programme is of seven semesters. The seventh semester is for industrial training (3372801) in which all students undergo live industrial training at various renowned textile industries. But due to the prevailing COVID-19 pandemic, it is not advisable to send them for the said task. By keeping the situation in view the online training framework is suggested as below:

The online training is divided into five modules each of two weeks. All students are divided into different balanced groups. In the first four modules the performance of all students will be assessed by the subject expert faculty. There will be a continuous guidance and regular weekly assessment through various online platforms and tools. This will form progressive assessment (PA). The fifth module is of Case study on Textile Processing Industry and its evaluation will take place at the time of final Viva Voce. There will be a group wise online submission of Training report after the 10th week.

The Textile Processing industry is broadly classified into four major areas. Those are Pretreatment, Dyeing, Printing and Finishing. The each group of students will undertake study of following vast sub areas of all four major departments:

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♦ Digital Learning WES - 2011 Award ♦ AIMS International Innovative University Award - 2013

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Module: 1 PRETREATMENT DEPARTMENT (2 Weeks)

1. Case study of different textile pretreatment technologies practiced by industries.
2. Preparation and application of Recipes for various pretreatment operations.
3. Study of Working and process control of Grey inspection machine.
4. Study of Working and process control of Gas Singeing machine.
5. Study of industrial Desizing process technology for various textiles.
6. Study of working of different mercerising machines and its process controls.
7. Study of quality control aspects of pretreated textiles.

Module: 2 DYEING DEPARTMENT (2 Weeks)

1. Case study of different textile dyeing technologies practiced by industries
2. Study of industrial dyeing practices for various textiles like Cotton, Polyester, Knitted fabrics etc.
3. Preparation and application of dyeing recipes for various dyeing processes.
4. Study of color measurement and matching of dyed textiles.
5. Case study of different dyeing machineries. Viz. Jigger, Jet, Soft flow, Continuous Dyeing Range etc
6. Study of Process controls involved in coloration of various textiles.
7. Study of quality control aspects of dyed textiles.

Module: 3 PRINTING DEPARTMENT (2 Weeks)

1. Case study of different textile printing technologies practiced by industries
2. Preparation of screen utilizing CAD/CAM for flat-bed and rotary screen printing machines
3. Study on working of various textile printing and fixation machineries like Flat-bed, Rotary Screen, Ager, Polymeriser etc.
4. Study of sampling and preparation of different printing paste.
5. Study of color measurement and matching of printed textiles.

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6. Study of different styles of printing on Cotton, Polyester and Polyester/Cotton blend with various dyes.
7. Study of different textile printing and fixation machineries and process parameters for Flat-bed, Rotary, Ager, Polymeriser etc
8. Case study on advanced textile printing technology like digital textile printing.
9. Study of quality control aspects of printed textiles.

Module: 4

FINISHING DEPARTMENT

(2 Weeks)

1. Case study of different textile finishing technologies practiced by industries.
2. Preparation and application of Recipes for various finishes.
3. Study of Working principle and process control of Stenter machine for heat setting of different textiles.
4. Study of working principle and process control of Sanforising machine.
5. Study of working principle and process control of various calendars.
6. Study of working principle and process control for Beach finishing machine.
7. study of quality control aspects of finished textiles.

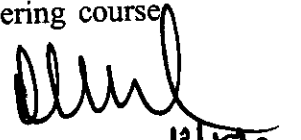
Module: 5

CASE STUDY

(2 weeks)

- In this module the group of students will prepare a case study on any textile processing industry.

The institutes running Textile Processing Technology branch in Diploma Engineering course are hereby informed to convey this circular to its all students and faculty members.


Registrar 13/5/24

Copy to: The institutes running Textile Processing Technology branch in Diploma Engineering course

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