

GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT

**COURSE CURRICULUM
COURSE TITLE: INDUSTRIAL TRAINING
(COURSE CODE: 3365801)**

Diploma Programs in which this course is offered	Semester in which offered
Printing Technology	SIXTH

1. RATIONALE

The diploma engineers are required to work in industry for exposure of printing various jobs and testing qualities of products during different printing stages and also after end products. The students need to have industry and production exposure, where they can experience real use of equipment, materials, instruments and various kinds of printing processes. This course has been designed for the students to have real life experiences to help them prepare for their career. The printing sector needs skilled and managerial personnel who have technical expertise as well as entrepreneurial qualities to manage the growing today's printing industry.

2. LIST OF COMPETENCIES

The course design and implemented with the aim to develop different types of skills leading to the achievement of the following competencies.....

- Work in industry to print various jobs to print various jobs with different printing process.
- Work in printing press to identify the print production cycle with best quality and in correct time period as per customer requirement

3. COURSE OUTCOMES

Students should work in the industry/service center as trainees so that they are able to acquire different learning outcomes to demonstrate following course outcomes. (Students should be able to demonstrate these skills on the type of printing technology on which they are trained, the following list is suggestive only, some more skills may be acquired by student depending upon the opportunities they get and in some cases some of the following skills may not be applicable for the printing field on which they have undergone training)

- Identify different faults/problems in printing field due to machine, substrate, image carrier etc.
- Rectify the fault/solve problem suitably in printing field.
- Assess industrial/workshop problems and find/suggest possible solutions.
- Understand workflow
- Study new technology and advancement in printing processes.
- Understand maintenance of different printing machines.
- Understand various safety procedures.
- Study of different quality control tests of printing industry.

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
-	-	-	30	-	-	500	300	800

Legends: L-Lecture; T – Tutorial/Teacher Guided Student Activity; P -Practical; C – Credit;; ESE -End Semester Examination; PA - Progressive Assessment.

Legends:

* Indicate External exam for practical. (20 students per day will be examined by external Examiner.)

**Indicate load of teaching faculty per week per division, for placing the Students in training, follow up of students at training (minimum 1 times per month), conduct the presentation with PPT / speak out (minimum 1 times per month at institute).

Evaluation Pattern:

- Progressive Assessment will be done by the internal examiner during monthly visits of teacher to industry and visit of student to institute and at the time of final internal presentation of report at institute level. (Max. Marks=500)
- End Semester External Exam would be conducted by external examiner (Max. Marks= 300)

Progressive Assessment

Internal Faculty should evaluate training on following criteria and marks-(Max. Marks=500)

1. Monthly Presentation with PPT / speak out (Maximum 150 Marks: Three monthly presentations of 50 marks each) during monthly visits of student to institute
2. Review of Log Book, Weekly Report (FORM-3) & Monthly Report (FORM-4) (Maximum150Marks: 50 marks for each monthly review during visit of teacher to industry (three visits)
3. Final project report at the end of training by Internal Faculty-(Maximum 100 Marks)
4. Internal presentation and viva by internal Faculty (Maximum 100 Marks) at the end of the semester

End Semester External Examination

Evaluation of ESE will be done by the External exam for practical (20 students per day (six Hours) will be examined by external examiner.) External examiner should evaluate training on following criteria and marks-(Max. Marks=300)

1. Presentation with viva - (Maximum 100 Marks)
2. Practical Skills Exam- (Maximum 100 Marks)

- 3 to 4 basic/core practical skills out of the total skills which students are supposed to have learnt during their industrial training should be examined depending upon available equipment/instruments at Institute level.
- 3. Review of Record and Training Report- (Maximum 100 Marks) such as log book, weekly reports, monthly reports, final training report including review of some critical/special experiences student has undergone (and mentioned in his report) at industry.

5. SUGGESTED WORK LOAD

- **Load of guiding and monitoring industrial training per week per division:** for placing the students in training, visit industry/ follow up the students at training at least once in a month for evaluating student's activity and their progress. Also conduct the presentation with PPT / speak out at least once in a month at their parent college per batch for evaluating student's activity and their progress. Total 30 hrs. load per week per division may be considered. Institute has to prepare time table for the teachers in such a manner that the concerned teachers remain free for one day (may be different days for different teachers) in each week for industrial visits and conducting the presentation at their parent college.

6. GUIDELINES FOR INDUSTRIAL TRAINING OF DIPLOMA IN PRINTING TECHNOLOGY

- Total no. of trainings during the curriculum: once in 6th semester.
- Duration of the training: One full semester.
- Eligibility: As per GTU detention norms at the time of training. Student can be sent for training subject to eligibility.
- Training Area: Students can be trained in various printing presses which are based on various major printing processes like offset, gravure, flexography etc. Presses should have implants pre-press, press, and post-press production facility.

Role of Department:

- Department have to send training request letter to various printing presses well in advance before commencement of training.
- After getting sufficient number of seats from the printing presses students will be placed in different printing presses for their 6th semester training.
- Students will have to fill up training form.(attached here with form-1)
- Department will issue an order letter printing presses for the said training mentioning the name and registration number of students.
- All above activities have to be carried out in vacation / in advance of previous semester as plan out of placement in consultation with students. The students would normally be placed as per their choices, in case of more demand for a particular industry/service center students would be allocated place based on their relative merit (based on third semester results)
- During the training period, the head of the department will maintain a schedule for follow-up of industrial training and according to it he/she will send the faculty members to various industries.
- The faculty member during the monthly visit to industry will check the progress of the student in the training, his/ her attendance, discipline and project report preparation.

- Department would prepare the schedule of the students monthly visits to institute and would assess their training based on their presentation
- The department has to keep record of above progressive assessment during monthly visits of teachers to industry and students to institute.
- At the end of the training internal faculty member will assess the work done by student based on his presentation at the institute and training report.

Role of Industry:

- Industry will give effective training to the students for improving their practical skills.
- Industry is expected to assign group of the students under training to some middle management level person for supervision and guidance (Training-in-charge).
- Training in-charge has to sign weekly diary (To certify the work done by students) with appropriate remarks.
- Industry may allot project to individual or group of students under training and students has to prepare report on the same project.
- Training in-charge is requested to guide students for preparing their project report.
- Industry is expected to maintain attendance for the student under training and report any irregularity of the students to their parent college.
- Industry is also expected to issue a certificate of attending training on their letter head with comments if any for student's record and motivation.

7. GUIDELINE FOR STUDENTS:

- Students would interact with the identified faculty of the department to suggest his choices for suitable industry/service center
- Students have to fill the forms duly sealed and signed by authorities along with training order letter and submit it to training officer in the industry on the first day of training.
- Student would carry with him/her the Identity card issued by institute during training period.
- He/she will have to get all the necessary information from the training officer regarding schedule of the training, rules and regulations of the industry. Student is expected to follow these rules, regulations, procedures etc. obediently.
- During the training period students has to keep record of all the useful information in Log book and maintain the weekly diary.
- He/she has to prepare a detailed report and presentations for each monthly visit to institute.
- Prepare final report about the whole training for submitting to the department at the time of final presentation and viva.

The training report may contain:

- ✓ Title page
- ✓ Certificate
- ✓ Abstract
- ✓ Acknowledgement
- ✓ Index
- ✓ Introduction of industry
- ✓ Industry lay out and modify modern printing press layout (at training place)
- ✓ Hierarchy of industry/organization chart.

- ✓ Types of major equipment/instruments/machines used in industry with their specification, approximate cost and specific use.
 - ✓ Particulars of Practical Experiences in industry/workshop - Production/ Assembly/ Testing of printed products, Faults and remedies of printing, Maintenance and preventive maintenance of printing machines.
 - ✓ Additional data/information on – cost reduction, repair / reconditioning of parts, accidental vehicle studies, Safety features, modifications, etc.
 - ✓ Special/challenging experiences encountered during training if any
 - ✓ My liking & disliking of work places-
 - ✓ References
 - ✓ Bibliography
- It is mandatory for students to maintain and fulfill criteria for attendance framed by Gujarat Technological University for the term to be granted.

8. SUGGESTED LEARNING RESOURCES

Students may visit websites related to printing processes and video of running machine and production as their learning tool during industrial visit. Source of learning websites are already given during previous semesters. Search videos, animations for preparation of PPT/ speak out as well literature for project report during the training period.

9. SPECIAL INSTRUCTIONAL STRATEGIES (If any)

- a) Visit industry/ follow up the students at training at least once in a month for evaluating student's activity and their progress.
- b) Conduct the presentation with PPT / speak out at least once in a month at their parent college per batch for evaluating student's activity and their progress.

10. COURSE CURRICULUM DEVELOPMENT COMMITTEE

1. **B.L.Patel, in charge H.O.D.**, Printing Department R. C. Technical Institute, Ahmedabad
2. **S. D. Gohel, Lecturer in Printing**, R. C. Technical Institute, Ahmedabad

.

Coordinator & Faculties from NITTTR Bhopal

- 1.
- 2.