

## GUJARAT TECHNOLOGICAL UNIVERSITY

### COURSE CURRICULUM COURSE TITLE: INDUSTRIAL TRAINING AND PROJECT (COURSE CODE: 3365201)

<b>Diploma Programme in which this course is offered</b>	<b>Semester in which offered</b>
CERAMIC TECHNOLOGY	SIXTH

#### 1. RATIONALE

The diploma engineers are required to work in industry related to ceramic processing, product manufacturing, plastic and non plastic raw materials, manufacturing, drying and firing, testing, recycling, designing etc. This course has been designed to fulfill need of industrial exposure, where they experience industrial environment.

#### 2. LIST OF COMPETENCIES

The course is designed and implemented with the aim to develop different types of skills leading to achieve following competencies:

Perform many activities/skills and get information pertaining to ceramic industry in areas of process, equipment, material and instruments.

#### 3. COURSE OUTCOMES

- Experience real life working environment and practices.
- Gain practical knowledge, new skills and be aware of current technologies.
- Provide opportunities to students to be as prospective employees.
- Analyze problems and find/suggest possible solutions.
- Present a project report both in oral and written form based on work experiences.

#### 4. TEACHING AND EXAMINATION SCHEME

Course Code	Course Title	Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				Total Marks
		L	T	P		Theory Marks		Practical Marks		
					ESE	PA	ESE	PA		
3365201	INDUSTRIAL TRAINING AND PROJECT	0	0	30	30	00	00	300	500	800
<b>Total</b>		<b>0</b>	<b>0</b>	<b>30</b>	<b>30</b>	<b>00</b>	<b>00</b>	<b>300</b>	<b>500</b>	

#### Legends:

L-Lecture; T-Tutorial; P-Practical; ESE – End Semester Exam., PA-Progressive Assessment,

## 5. EVALUATION PATTERN

**Evaluation for PA by the Internal examiner:** - Evaluation of 500 marks for PA will be done by the internal examiner at institute level, mainly based on weekly diary, follow up report, progress report and final training report as follows:

<p><b>INDUSTRIAL TRAINING</b></p> <p><b>20 - 20</b></p> <p>DEPARTMENT: CERAMIC ENGINEERING</p> <p>NAME OF STUDENT:-</p> <p>SEMESTER: - 6<sup>TH</sup></p> <p>ENROLLMENT NUMBER :</p> <p>NAME OF INDUSTRY:-</p> <p>ADDRESS:-</p>
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<p><b>JOINING REPORT</b></p> <p style="text-align: right;">FROM: (Name of company).....</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">.....</p> <p>TO,</p> <p>PRINCIPAL</p> <p>(Name of institute)</p> <p>Subject: - Joining report for industrial training of 6<sup>th</sup> semester. As per your letter no. :-</p> <p>_____</p> <p>Dated / / 201 , I have reported for training at _____ on _____. The weekly off day of the industry is _____.</p> <p>Thanking you.</p> <p>Yours' faithfully</p> <p>(.....)</p>
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Signature and Stamp of Training Officer  
(To be send immediately after joining the industry)

### DETAIL OF THE INDUSTRY

1. NAME OF INDUSTRY:-
2. ADDRESS:-
3. PERIOD OF TRAINING:-
4. NAME OF TRAINING OFFICER AND DESIGNATION:-
5. WEEKLY OFF DAY:-

### WEEKLY REPORT

PERIOD: - FROM     /     /201     = .....DAYS  
OFF DAYS: -.....=.....DAYS  
LEAVE ENJOYED ON .....=.....DAYS  
TOTAL DAYS ATTENDED.....=.....DAYS  
DETAILS OF WORKING:-

SIGNATURE  
(TRAINING OFFICER)

SIGNATURE  
(STUDENT)

**MONTHLY REPORT**

PERIOD: - FROM / /201 TO / /201 =.....DAYS

OFF DAYS: - .....=.....DAYS

LEAVE ENJOYED ON..... =.....DAYS

TOTAL DAYS ATANDED.....=.....DAYS

EVALUATION:-

SR No.	PARTICULARS	EVALUTION BY	
		TRAINNG OFFICER (INDUSTRY)	FACULTY (INSTITUTE)
1	Punctuality		
2	Participation in work allotted		
3	Practical level attained		
4	Industrial relationship		
5	Project write - up preparation		

Any other remarks:-

SIGNATURE  
(FACULTY)

**PROGRESS REPORT**

(Name of Institute)  
DEPARTMENT OF CERAMIC TECHNOLOGY

Name of Student :

Enrolment No. :

Name of Industry :

Address of Industry :

Comments :

1. Type of the Industry

Production                                  Ceramics

2. Production of :

3. Regularity of student during training

Average                                  Good                                  Excellent

4. Stipend paid per month Rs. \_\_\_\_\_

5. Industry's opinion regarding trainee

Average                                  Good                                  Excellent

Remarks :

Sign:	Training In-charge
Name of faculty:	(Industry)

**Final Training Report:**

<p style="text-align: center;"><b>FORMAT OF INDUSTRIAL TRAINING REPORT</b></p> <ul style="list-style-type: none"><li>➤ Title page</li><li>➤ Certificate</li><li>➤ Preface</li><li>➤ Acknowledgement</li><li>➤ Index</li><li>➤ Introduction of industry</li><li>➤ Industry lay out</li><li>➤ Hierarchy of industry/organization chart.</li><li>➤ Products</li><li>➤ Raw materials</li><li>➤ Types of major equipments/instruments/machines used in industry with their specification, approximate cost and specific use.</li><li>➤ Manufacturing/production process</li><li>➤ Faults and remedies</li><li>➤ Maintenance</li><li>➤ Safety features</li><li>➤ My liking &amp; disliking of work places</li><li>➤ References</li><li>➤ Bibliography</li></ul>
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**Evaluation for ESE by the External examiner:** - Evaluation of 300 marks for ESE will be done by the external examiner on following criteria -

**1. Knowledge gained-**

- Products

- Raw materials
  - Types of major equipments/instruments/machines used in industry with their specification, approximate cost and specific use.
  - Manufacturing/production process
  - Faults and remedies
  - Maintenance
  - Safety features
  - Planning
2. **Skills learned-**
- Process parameter setting of various Ceramic processing methods.
  - Troubleshooting
  - Safety precautions
3. **Incidents/ cases from Experiences-**
- The students should record classic cases for learning for others, such as
- Tricky problems and their solutions,
  - Typical fault diagnosis and their solutions,
  - Tricky symptoms and their solutions.
  - Part modifications.
  - System modifications.
  - Cost reduction cases.
  - Quality improvement.
  - Improvement Method

## 6. SUGGESTED WORK LOAD

- As per the Board of Apprenticeship, faculty of the parent institute has to visit industry at least once in a month for evaluating student's activity and their progress.
- The number of industry which provides training and number of students are varying every year. In this consequence and considering role of faculty in training, workload is allotted to faculty for industrial visit.
- Work load allotted to faculty per batch of 20 students is 30 Hrs / week. Institute has to prepare time table of the staff in such a manner that one faculty must be remain free for one whole day for industrial visit/counseling of the trainee. Trainee should be distributed equally among the faculty involved and the faculty will be considered guide/counselor for those students. Progressive assessment will be carried out by that guide/counselor.

## 7. GUIDELINES FOR SANDWICH APPRENTICESHIP INDUSTRIAL TRAINING-I

- **Duration of the training:** Six months. It should start within one week from the date of completion of GTU examination of the semester IV.
- **Eligibility:** Student will be allowed for training subject to GTU eligibility criteria for particular semester.
- **Apprenticeship Board:** The training will be covered under the Apprenticeship Act 1973 and as per current rule; the trainee will be eligible for a stipend of Rs. 2070/- per month out of which 50% will be paid by the employer and 50% will be reimbursed by Board of Apprentice Training (BOAT), Western Region, Mumbai. Stipend will be revised periodically by Board of Apprentice.

- **Training Area:** Students can be trained in Ceramic Processing, Product Manufacturing, Raw Material Manufacturing, Mould/die selection, Testing, Quality Control etc. Students should be sent to industry strictly based on merit.

#### **A. ROLE OF DEPARTMENT**

- Department has to send training request letter to various industries well in advance before commencement of training.
- After getting sufficient number of seats from the industries, students will be placed in different industries for their 6th semester training.
- Students will have to fill up training contract form (uploaded on B.O.A.T. web site) in three copies with photographs sealed and signed by the authorities.
- Department will issue an order letter to industry for the said training mentioning the name and registration number of students.
- During the training period, the head of the department will maintain a schedule for follow-up of industrial training and according to it send the faculty to various industries.
- The faculty will check the progress of the student in the training, attendance; discipline and project report preparation and also give necessary guidance to students.
- The department has to prepare Progress Report of the trainee for the industrial training.
- At the end of the training, concerned faculty will do assessment of the work done by trainee.

#### **B. ROLE OF INDUSTRY**

- Industry will give effective training to the students for improving their practical skills.
- Industry may provide training in-charge for the group of the students under training.
- Training in-charge has to evaluate each student every week and signed weekly diary 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 has to guide students for preparing their project report.
- Industry has to maintain attendance for the student under training and report for any irregularity of the students to their parent institute.

#### **C. GUIDE LINE FOR STUDENTS**

- Students have to fill the contract 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.
- 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.
- During the training period students will keep record of all the useful information and maintain the weekly diary.
- He/she will prepare a detailed training report about the whole process and will submit it to the department at the time of examination.

#### **8. SUGGESTED LEARNING RESOURCES**

- Students may visit websites as their learning tool during industrial visit.
- Source of learning websites are already given during previous semesters.
- Search videos, animations for preparation of training report during the training period.



## **9. COURSE CURRICULUM DEVELOPMENT COMMITTEE**

- **Shri. B.B.Patel**, Lecturer in Ceramic Technology, L.E Govt. polytechnic, Morbi
- **Shri. Murali.N**, Lecturer in Ceramic Technology, L.E Govt. polytechnic, Morbi
- **Shri. S. B. Upadhyay**, Lecturer in Ceramic Technology, L.E Govt. polytechnic, Morbi