6.1 PROJECT-ORIENTED PROFESSIONAL TRAINING AND REPORT

L	T	P	Cr
-	-	40	20

During sixth semester (complete) the students should be sent to leather manufacturing industry for practical training. The purpose of this training is:

i) Development of understanding regarding the types and nature of field activities in which students are going to play a role as leather technologists after completing diploma programme

ii) Development of understanding of subject based knowledge given in the class room in the context of its application at work places

iii) Development of first hand experience and confidence amongst the students to enable them to use and apply polytechnic/ institute based knowledge and skills to solve practical problems in the world of work

iv) Development of special skills and abilities like interpersonal skills, communication skills, attitudes and values.

For the fulfillment of above objectives, polytechnic(s) offering diploma course in leather technology may establish close linkages with 8-10 leather manufacturing/processing industries/ organisations. The industries/organisations may be contacted by the teachers and students for practical training of students during sixth semester which has been exclusively kept for practical industrial training. The practical industrial training has to be well planned, structured and supervised by polytechnic teachers clearly specifying complete schedule of the students on day to day basis for whole of their training. Performas may be developed by the polytechnic(s),in consultation with personnel from industries to access daily, weekly and monthly progress of the students and the students must be asked to fill these performas regularly duly signed by them and countersigned by personnel from industry and concerned teacher attached to a particular student. Each teacher is suppose to supervise and guided 2-3 students. Following schedule, as a sample, is proposed for the training:

1. Familiarization and Training of Various Leather Manufacturing Operations

Students must be made familiarized with various materials and operations involved in manufacturing of different types of leather used for different purposes. Students should be exposed to different processes involved at different stages of tanning of leather in different sections of leather industries. In particular they must be familiarized and trained in identification, storage, handling, assorting, and grading of raw hides and skins; flaying, curing and preservation practices; microscopic and bacteriological examination of hides and skins; chemicals and analysis of chemicals used for preservation of raw hide and skins; physical, chemical and bacteriological testing/examination of leather at different stages of tanning; Dyes and Dyestuffs, oils, fats, waxes, soaps, soaking materials, fat liquors

other chemicals and raw materials required for tanning; liming and deliming operations, striffing and drying operations; identification of defects and their rectification in finished leather; techniques of measuring areas of hides and skins in wet salt conditions and finished leather; marking and packages techniques; operation of effluent treatment plant; recycling/utilization of wastes; procurement, installation and operation of various computerized/machining processes, operations and processes involved in leather goods and footwear manufacturing.

2. Specific Task

After spending 6 weeks in different sections of leather/ leather goods and footwear manufacturing industry and undergone training in processes and different operations involved at shop floor, students must be given specific task in the industry as a part of their practical industrial training programme. Some of the tasks/assignments have been suggested below:

i) Identification and handling of raw hides/skins, chemicals and other raw materials
ii) Testing and quality control of raw materials in the tannery
iii) Supervision of different operations/ processes involved in manufacturing of leather used for different end uses
iv) Testing and quality control of leather at different stages of tanning
v) Finishing techniques being used by the leather industry
vi) Measurement, marking, packaging and handling of finished leather
vii) Supervision of effluent treatment plant and waste minimization/utilization
viii) Maintenance and operation of different machinery used at different stages of leather manufacturing
ix) Operation and supervision of processes involved in leather goods and footwear manufacturing
x) Marketing, management and costing

3. Problem Solving at Work Site

After undergoing above two phases of vigourous practical industrial training, students may be given practical live problems which are of interest to industry where he is taking practical training. The problem should be identified, guided by the personnel from industry in collaboration with teacher and the solutions suggested by the students may be tried.

NOTE:

Students are suppose to prepare detailed notes of each of above phases of training and write complete report of the whole of practical industrial training which shall be used for the learning and evaluation purposes.

A suggestive criteria for assessing student performance by the external (personnel from industry) and internal (teacher) examiner is given in table below:

Sr. No.	Performance criteria	Max.** marks	Rating Scale				
			Excellent	Very good	Good		Poor
1.	Selection of project assignment	10	10	8	6	4	2
2.	Planning and execution of considerations	10	10	8	6	4	2
3.	Quality of performance	20	20	16	12	8	4
4.	Providing solution of the problems or production of final product	20	20	16	12	8	4
5.	Sense of responsibility	10	10	8	6	4	2
6.	Self expression/ communication skills	5	5	4	3	2	1
7.	Interpersonal skills/human relations	5	5	4	3	2	1
8.	Report writing skills	10	10	8	6	4	2
9.	Viva voce	10	10	8	6	4	2
Total marks		**100**	**100**	**80**	**60**	**40**	**20**

The overall grading of the practical training shall be made as per following table

	Range of Maximum Marks	Overall Grade
i)	More than 80	Excellent
ii)	79 <> 65	Very good
iii)	64 <> 50	Good
iv)	49 <> 40	Fair
v)	Less than 40	Poor

In order to qualify for the diploma, students must get “Overall Good grade” failing which the students may be given one more chance of undergoing 8 -10 weeks of project oriented professional training in the same industry and re-evaluated before being disqualified and declared “not eligible to receive diploma ”. It is also important to note that the students must get more than six “goods” or above “good” grade in different performance criteria items in order to get “Overall Good” grade.

Important Notes

1. **This criteria must be followed by the internal and external examiner and they should see the daily, weekly and monthly reports while awarding marks as per the above criteria.**

2. **The criteria for evaluation of the students have been worked out for 100 maximum marks. The internal and external examiners will evaluate students separately and give marks as per the study and evaluation scheme of examination.**

3. **The external examiner, preferably, a person from industry/organization, who has been associated with the project-oriented professional training of the students, should evaluate the students performance as per the above criteria.**

4. **It is also proposed that two students or two projects which are rated best be given merit certificate at the time of annual day of the institute. It would be better if specific nearby industries are approached for instituting such awards.**