

Department of Chemical Engineering
Sant Longowal Institute of Engineering & Technology, Longowal
Exercise in lieu of Industrial Training
B.E. Chemical Engg. Degree 2nd Year Students (GCT19)

2 Weeks (80 hrs.) – (1st – 14th July, 2021)

Preamble: The present situation has forced most of us to work from home. In such a scenario it will not be possible for students to undergo Summer Training in normal fashion as per past practice. So, in view of giving our student to complete course requirement, it is proposed to give suitable exercise to cover the said aspect of course. In this exercise, each student is expected to write a report in given format for the given exercise. The report should be submitted in PDF format to designated email id/ Google classroom in case submission does not fall in the period of institute working. Otherwise a bound report is to be submitted to respective Faculty Coordinator (Summer Training) after getting approved from the faculty mentor/supervisor (Summer Training) assigned to the student.

Duration: 2 Weeks (80 hrs.) – (1st – 14th July, 2021)

Objectives: The student must be able to

1. To observe the structure and functioning of a chemical industry
2. To understand scope and opportunities in chemical engineering
3. To analyze the NBA attributes for an engineering graduate
4. To understand and evaluate skills required by a chemical engineer – Hard skills and soft skills
5. To understand and visualize a chemical process industry in term of manufacturing process, detailed flow diagrams, materials handling, functioning of various sections of industry. And to apply material and energy balance over the process.
6. To get familiar about the safety, environment and energy issues in a chemical industry
7. To understand and analyze the situation of COVID-19 and lifestyles and measures after lockdown period w.r.t. campus living like academics, hostel etc.

Distribution of activities to be taken up by students:

Objective	Activity	References	Report Submission	No. of Hrs. considered	Marks allocated	Activity Days	Report Submission day	
1	Explore the websites of the reputed chemical industries (at least 05 nos.) and for Career, Jobs, Employability assessments for Chemical Engineers	Internet/ websites of specific chemical industries Websites: TCSiON; AICTE; any other	Summarize administrative structure and functions of chemical industries	3 hrs.	3	Day 1	Day 2	
2	#1. Identify the suitable opportunities for Chemical Engineering Graduates i. Employment (Industry/service sector) ii. Self-Employment (Start-up/business opportunity/ setting up of small plant) iii. Higher studies #2. Job advertisements for Freshers Chemical Engineering Graduates posted in the past 5 years (at least 20 nos.)	Google; youtube etc.	04 page summary report for #1 And 20 pages of job advertisements for #2	3 hrs.	4	Day 2-3	Day 4	
3	Study of NBA attributes for Engineers and evaluate yourself (pointwise)	-do-	04 pages report	2 hrs.	3	Day 1-2	Day 3	
4	A	Preparation of powerpoint presentation on hard skills and soft skills required by chemical engineers based on NBA attributes for engineering graduates	-do-	Powerpoint presentation of 12-16 no. of slides	3 hrs.	4	Day 4-5	Day 6
	B	Online designated Talks by Experts OR any online training sessions	Will be suggested/ arranged online by department	2 pages summary report for each talks	6 hrs.	10	-	On the day next to talk
	C	Online course on Soft/Life Skills for engineers	To be arranged by department	One page Summary of each day program	20 hrs.	16	Day 1-14	Day 15
5	Study about any specific chemical industry (of any lead industrial group): <ul style="list-style-type: none"> • History • About industry • Vision, Mission, philosophy • Administration • Organization Chart • Financial Aspects • H.R. functions & contact details • Raw materials, Products and Processes • Sections/ Departments of Industry • Process flow diagram • Unit Operations/ Processes details • Apply Material and energy balance over the process 	<ul style="list-style-type: none"> • Website of selected industry • Website of related ministry • Google • Youtube • E-Books And any related source Note: Faculty mentors will ensure that the students must understand the application of Material and Energy balance.	Detailed report	24 hrs.	30	Day 4-11	Day 12	
6	<ul style="list-style-type: none"> • Safety measures 	-do-	-do-	8 hrs.	10	Day 12-14	Day 15	

	<ul style="list-style-type: none"> • Environmental Issues • Energy sources & energy conservation 						
7	Study the guidelines/ protocol issued by WHO/ICMR/ any other agency Your ideas on 'Campus Living after Lockdown Period of COVID-19' And also suggestions for industries	https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html WHO/ICMR website	Analyze campus living after COVID-1 lockdown like in academics, hostel etc. Analyze for industry 6-8 pages report	5 hrs.	10	Day 6-9	Day 10
8	A small project related to chemical engineering at domestic level (Working model/ software/ Improvement in any domestic gadget or process/ product development)	Websites for innovation projects Faculty mentors will ensure through online class and monitoring	5-8 pages brief report	6 hrs.	10	Day 8-14	Day 15

Other online links and study materials would be shared time to time through Google Classroom. All students would be required to register on the Google Classroom for Summer Training and will submit objective-wise report into it after getting approved from concerned Faculty mentor/ supervisor (summer training) [Communication with concerned faculty mentor/ supervisor (Summer Training) may be made through phone/whatsapp/e-mail]. Late submission will not be accepted for evaluation and zero marks will be awarded for that. Faculty mentors/ supervisors (Summer Training) will evaluate the work/ reports regularly and return to the students after giving marks and necessary comments in the Google classroom, and the final award sheet in prescribed Performa would be submitted to Faculty Coordinator (Summer Training) at the end of training program. Following will be distribution of marks to be awarded:
60% of total marks – To be awarded by concerned Faculty mentor/ supervisor (Summer Training) (continuous assessment)
20% of total marks – To be awarded by Faculty Coordinator ((Summer Training) (Continuous assessment)
20% of total marks – To be awarded on the basis of final report submission and Viva-voce exam. (To be conducted by Faculty Convener)

GUIDELINES FOR SECTIONWISE REPORTS (Soft copy only)

Front page : Task Name, Student Name, Course, Registration No, Institute Logo, Department Name, Institute Name and address, Dates etc.

Body of text of report

References used

GUIDELINES FOR FINAL REPORT (Soft/ Hard copy)

Front page : Task Name, Student Name, Course, Registration No, Institute Logo, Department Name, Institute Name and address, Dates etc.

Second Page: Certificate

Third Page onwards:

Dedication/Acknowledgement

Contents

Body of Report (sectionwise), each section to start with New page

References and Appendix (if Required).

(Format : Font-12 Pt. Arial, 1.5 line spacing, Both Sides printing, Main Heading 14 Bold, Sub Heading 12 Bold)

If any student wishes to go for some other equivalent course work/ online internship etc., he/she has to get it approved from the institute through Department Training Coordinator and submit to Faculty Coordinator (Summer Training) in advance. For such cases, Department Training Coordinator will be the Supervisor.