

CL-308: Overview of Indian Chemical Industry (Course on Wheels-2024): Program			
	Date	Program	Stay at (Tentative)
Preparation week: Classroom Lectures			
Monday	25-Nov-24	8:30AM Introduction to Course on wheels (SMM) (Room 112 Old (118)) 5:30PM Refinery and Petrochemicals-I (SMM) (Room 121 Old (130))	Hostel(s)-IITB
Tuesday	26-Nov-24	11:00 AM Refinery and Petrochemicals-II (SMM) (Room 112 Old (118)) 2:15-3:30PM Sustainability (YS) (Room 121 Old (130)) 6:30PM Refinery and Petrochemicals-III (SMM) (Room 112 Old (118))	Hostel(s)-IITB
Wednesday	27-Nov-24	8:15AM Fertilizers-I (SMM) (Room 112 Old (118)) 2:30PM Interaction with an Alum (SB) (Room 121 Old (130)) 5PM Instrumentation and Control (SJ) followed by DWSIM Doubt Session (Room 112 Old (118))	Hostel(s)-IITB
Thursday	28-Nov-24	8:30-9:45AM Chloro-Alkali Process (Room 112 Old (118)) 5PM Quiz 1 (DWSIM) followed by Carbon Footprint Model (Tentative) (Room 112 Old (118)) 6:30 to 8:00 PM Safety (RN) (Room 112 Old (118))	Hostel(s)-IITB
Friday	29-Nov-24	8:30 AM ETP (Amritanshu); 9:30AM: Techno-Commercial Aspects and Fines and Specialities (RN) (Room 112 Old (118)) 4 to 6pm: Panel discussion by BASF (RN) (Room 112 Old (118))	Hostel(s)-IITB
Saturday	30-Nov-24	8:30 AM- Power Plant & Other Utilities (Room 112 Old (118)) 5PM: Quiz 2 (Room 112 Old (118))	Hostel(s)-IITB
Sunday	1-Dec-24	Departure: 8:30AM	Hotel Pride, Bharuch
Journey Starts			
Monday	2-Dec-24	GIPCL, Nani Naroli (Thermal Power Plant)	Hotel Pride, Bharuch
Tuesday	3-Dec-24	ONGC, Ankaleshwar (Oil and Gas)	Hotel Pride, Bharuch
Wednesday	4-Dec-24	ONGC, Ankaleshwar (Oil and Gas)	Hotel Pride, Bharuch
Thursday	5-Dec-24	DMCC (proposed)	Hotel Pride, Bharuch
Friday	6-Dec-24	Birla Copper	Hotel Comfort, Bharuch
Saturday	7-Dec-24	UPL (Agrochemicals)	Hotel Comfort, Bharuch
Sunday	8-Dec-24	ATUL (Ankaleshwar)	Hotel Pride, Bharuch
Monday	9-Dec-24	GNFC (Fertilizers)	Hotel Pride, Bharuch
Tuesday	10-Dec-24	GNFC (Fertilizers)	Hotel Pride, Bharuch
Wednesday	11-Dec-24	Zydus (APIs)	Hotel Pride, Bharuch
Thursday	12-Dec-24	JB Chemicals and BEIL	Hotel Pride, Bharuch
Friday	13-Dec-24	Travel to Jamnagar	Reliance Township Jamnagar
Saturday	14-Dec-24	Reliance Petroleum Ltd, Jamnagar (Refinery)	Reliance Township Jamnagar
Sunday	15-Dec-24	Rest and other activities	Reliance Township Jamnagar
Monday	16-Dec-24	Reliance Petroleum Ltd, Jamnagar (Refinery)	Reliance Township Jamnagar
Tuesday	17-Dec-24	Reliance Petroleum Ltd, Jamnagar (Refinery) & travel to Bhavnagar	Nirma colony
Wednesday	18-Dec-24	Nirma	Nirma colony
Thursday	19-Dec-24	Nirma & travel to Dahej	Reliance Township Dahej
Friday	20-Dec-24	RIL Dahej	Reliance Township Dahej
Saturday	21-Dec-24	RIL Dahej	Reliance Township Dahej
Sunday	22-Dec-24	Midsem; Talk by Reliance experts.	Anand (Proposed)
Monday	23-Dec-24	AMUL (Proposed)	Pearl , Kamrej surat
Tuesday	24-Dec-24	L&T-Hazira (Equipment fabrication)	IITB Mumbai
Journy Ends			
	Jan 1st and 2nd week	Endsemester exam; Report Submission and Project presentations	Hostel IITB
	Jan 3rd week	Grades announcement	Hostel IITB

Things you will be exposed to..
Processes and facilities
Processes and plants for few representative chemicals* from each sector. Their comparison.
Specific processes: Reformers, Gas cracker, Refinery opearations- FCC, platforming, Coking, Crude distillation, Hydroprocessing
Facilities/techniques: Oil exploration, Coal mining, Salt works, Jetty for oil/product shipment
Equipment/Operations
Mass transfer: Distillation; absorption; Extarction; cooling towers
Heat Transfer: Different types of Heat exchangers (S&T, Plate); Multiple effect evaporators; ATFE, thermosyphon reboilers
Process control: DCS system for plant operation and control
Power plant: Turbines, generators, Boiler steam tube panels; Coal handling system
Reactors: Different types of catalytic/non-catalytic reactors; packed and fluidised beds, stirred tanks, gas-liquid and gas-solid reactors
Chemicals of Interest*
Petrochemicals: Ethylene oxide, Polyethylene, PVC, polypropylene, PET
Fertilizer Industry: ammonia, urea, methanol, sufuric and nitric acid, phosphate fertilizers
Agrochemicals: carbon disulphide, pendimethylene
Inorganic Chemicals: soda ash, caustic, chlorine, table salt
Dyes, APIs, perfumery and coating intermediates
Other
Techno-commerical aspects of chemical manufacture and business: Views of Practising Chemical Engineers and managers
A session with first generation entrepreneurs in Chemical Sector