

**Course: Chemical Engineering, Course Coordinator: Smt. S. Mitrasarkar, I/C HOD, Ujjain Polytechnic College, Ujjain**

Semester	Name of	Subject	Module	Lecture Topic	Link
III	Smt. S. Mitrasarkar	Chemical Engineering Stoichiometry	1	1. Introduction to Subject and course outcomes	<a href="https://drive.google.com/file/d/1UGyEtV8_QBO7PVWXW_EJ7WiyXrrEUd">https://drive.google.com/file/d/1UGyEtV8_QBO7PVWXW_EJ7WiyXrrEUd</a>
				2. System of Units, Fundamental and derived quantities	<a href="https://drive.google.com/file/d/1FTCds67sKjUh4VSQhmhrRh3ytSYCRKSq">https://drive.google.com/file/d/1FTCds67sKjUh4VSQhmhrRh3ytSYCRKSq</a>
				3. Temperature Scale, Force and Concept of gc	<a href="https://drive.google.com/file/d/1CZzts7YrxbaKsQl7F3v65kCnNpO7LXtg/v">https://drive.google.com/file/d/1CZzts7YrxbaKsQl7F3v65kCnNpO7LXtg/v</a>
				4. Pressure, Work, Energy, Power and Heat	<a href="https://drive.google.com/file/d/1-dE_U8RUXzT-I5BxkDDcgFJhSV0NLwxi/v">https://drive.google.com/file/d/1-dE_U8RUXzT-I5BxkDDcgFJhSV0NLwxi/v</a>
	2			1. Molecular weight, Atomic Weight	<a href="https://mega.nz/file/RoZDiYRS#on8lXTnMKsYj1FA0pTmjW9XI045_rpay20">https://mega.nz/file/RoZDiYRS#on8lXTnMKsYj1FA0pTmjW9XI045_rpay20</a>
				2. Equivalent Weight,	<a href="https://mega.nz/file/8o1xIKJ#Lg7MycUSXawBeLqc1Ya-PyL1KuWpwprfQ-">https://mega.nz/file/8o1xIKJ#Lg7MycUSXawBeLqc1Ya-PyL1KuWpwprfQ-</a>
				3. Methods of Expressing composition of mixtures.	<a href="https://mega.nz/file/lhJhWCwL#Vt7BIE38LgUahzQ-o6TaInBmFZAJmSMBC">https://mega.nz/file/lhJhWCwL#Vt7BIE38LgUahzQ-o6TaInBmFZAJmSMBC</a>

			4. Basic Calculation on expression of composition of mixtures and solutions	<a href="https://mega.nz/file/h1QXUIZa#yh3b974Yq9jZ89b2yebIshoxWbNkk2nqS6">https://mega.nz/file/h1QXUIZa#yh3b974Yq9jZ89b2yebIshoxWbNkk2nqS6</a>	
			5. Methods of expressing composition of solutions	<a href="https://drive.google.com/file/d/1wi7n9geeBtBrNWqAZh4OIRII4ggYSTGf/v">https://drive.google.com/file/d/1wi7n9geeBtBrNWqAZh4OIRII4ggYSTGf/v</a>	
			6. Simple Calculations based on composition of solutions	<a href="https://www.dropbox.com/s/1chmfni4iml0txj/Lecture%206%20corrected">https://www.dropbox.com/s/1chmfni4iml0txj/Lecture%206%20corrected</a>	
			7. Mass Relation in Chemical Engineering	<a href="https://www.dropbox.com/s/kxfpvgivcg7u0ey/Lecture%207%20final.mov">https://www.dropbox.com/s/kxfpvgivcg7u0ey/Lecture%207%20final.mov</a>	
			8. Calculations based on mass relations in chemical reactions	<a href="https://www.dropbox.com/s/kxfpvgivcg7u0ey/Lecture%207%20final.mov">https://www.dropbox.com/s/kxfpvgivcg7u0ey/Lecture%207%20final.mov</a>	
		<b>3</b>	1. Ideal gas laws	<a href="https://www.dropbox.com/s/7b8f6jus5zpap8f/Lecture%201.mov?dl=0">https://www.dropbox.com/s/7b8f6jus5zpap8f/Lecture%201.mov?dl=0</a>	
			2. Calculations based on Ideal gas laws	<a href="https://www.dropbox.com/s/3yqmr2gj5tpma2z/Lecture%202.mov?dl=0">https://www.dropbox.com/s/3yqmr2gj5tpma2z/Lecture%202.mov?dl=0</a>	
v	Shri Manoj	Process heat Transfer	<b>1</b>	1. Introduction	<a href="https://drive.google.com/file/d/1jY8qLOLzXYNwiCpLy2ex-5ILfweoRbOs/v">https://drive.google.com/file/d/1jY8qLOLzXYNwiCpLy2ex-5ILfweoRbOs/v</a>
				2. Fourier's Law	<a href="https://drive.google.com/file/d/1UoEcX3XZMU7nwLmjYuzXOTgXsb96AfN">https://drive.google.com/file/d/1UoEcX3XZMU7nwLmjYuzXOTgXsb96AfN</a>
				3. Steady State Conduction	<a href="https://drive.google.com/file/d/1kBcTrGuI7ZseCl1gT7z5lzFr5Stph_Va/view">https://drive.google.com/file/d/1kBcTrGuI7ZseCl1gT7z5lzFr5Stph_Va/view</a>

				4. Steady state conduction	<a href="https://drive.google.com/file/d/1-5EEN6uMFewciGN5y4sDGoaYd34pcYs6">https://drive.google.com/file/d/1-5EEN6uMFewciGN5y4sDGoaYd34pcYs6</a>
			<b>2</b>	1. Approaches and range for heat exchanger	<a href="https://drive.google.com/file/d/18PT0VEL8NQ2g83mZKP9oYpz0g-nudLeH">https://drive.google.com/file/d/18PT0VEL8NQ2g83mZKP9oYpz0g-nudLeH</a>
				2. Relative direction of fluid	<a href="https://drive.google.com/file/d/1PWdJDziOp-NlloT5W5xMhEfg-MqYtOE/">https://drive.google.com/file/d/1PWdJDziOp-NlloT5W5xMhEfg-MqYtOE/</a>
				3. LMTD	<a href="https://drive.google.com/file/d/1PWdJDziOp-NlloT5W5xMhEfg-MqYtOE/">https://drive.google.com/file/d/1PWdJDziOp-NlloT5W5xMhEfg-MqYtOE/</a>
				4. Principle of Heat Flow (Individual Heat Transfer Quotient)	<a href="https://drive.google.com/file/d/1tGul-v9KKGXJaSqF-2Nlr9VX2Wa6vMFF/">https://drive.google.com/file/d/1tGul-v9KKGXJaSqF-2Nlr9VX2Wa6vMFF/</a>
				5. Principle of Heat Flow (Calculation of overall coeff. from individual coeff.)	<a href="https://drive.google.com/file/d/1QBQUHIDPCig7PXjD-r2vrFpYsBOgLU1/v">https://drive.google.com/file/d/1QBQUHIDPCig7PXjD-r2vrFpYsBOgLU1/v</a>
v	Shri U.C. Giriya	Separation technique 1	<b>1</b>	1. BPC and XY Diagram	<a href="https://drive.google.com/file/d/1wRF-Hgc02MPn2UEhmzzEewGXuMaFT8">https://drive.google.com/file/d/1wRF-Hgc02MPn2UEhmzzEewGXuMaFT8</a>
				2. Introduction to Mass Transfer	<a href="https://drive.google.com/file/d/1w6J_ZiJNtnFDu_AyP9d7E7pmJaobzBI/v">https://drive.google.com/file/d/1w6J_ZiJNtnFDu_AyP9d7E7pmJaobzBI/v</a>
				3. INTRODUCTION TO DISTILLATION	<a href="https://drive.google.com/file/d/15hJZ0uNVABVT58GahOZYt6sSZMYs6UfT">https://drive.google.com/file/d/15hJZ0uNVABVT58GahOZYt6sSZMYs6UfT</a>
				4. VOLATILITY AND RELATIVE VOLATILITY	<a href="https://drive.google.com/file/d/14EW5LCGsGd_pzBbN69X5RtOmb7FUW/">https://drive.google.com/file/d/14EW5LCGsGd_pzBbN69X5RtOmb7FUW/</a>

			2	1. Differential distillation	<a href="https://drive.google.com/file/d/1FN13Wk0JUMcaOHZNcp98i3msxakZDeF">https://drive.google.com/file/d/1FN13Wk0JUMcaOHZNcp98i3msxakZDeF</a>
				2. Rayleigh Equation	<a href="https://drive.google.com/file/d/1VRMBE1cGBXkePMFBjGmtyxHIKUYUpw">https://drive.google.com/file/d/1VRMBE1cGBXkePMFBjGmtyxHIKUYUpw</a>
				3. Rectification	<a href="https://drive.google.com/file/d/1XQwONoKvQQKmVC8VW8kE4ue9ARyC">https://drive.google.com/file/d/1XQwONoKvQQKmVC8VW8kE4ue9ARyC</a>
				4. Equilibrium distillation	<a href="https://drive.google.com/file/d/1We6AS-10fu99VgBYpEyP0VoZG29U37sA">https://drive.google.com/file/d/1We6AS-10fu99VgBYpEyP0VoZG29U37sA</a>
			3	1. Assumptions in Mc Cabe & Thele Method	<a href="https://drive.google.com/file/d/1RkRyCdLqZpghMqElhA3p_I0cXZZ-I2L/v">https://drive.google.com/file/d/1RkRyCdLqZpghMqElhA3p_I0cXZZ-I2L/v</a>
				2. Material and Energy balance in a distillation column	<a href="https://drive.google.com/file/d/12HaD1LDizW-ExJ2bUdINS_gt84ACxOgn/">https://drive.google.com/file/d/12HaD1LDizW-ExJ2bUdINS_gt84ACxOgn/</a>
				3. Top and bottom operating line	<a href="https://drive.google.com/file/d/1FG9kxYGhsiU4yq_9Gg_GjLacFH94pi2e/v">https://drive.google.com/file/d/1FG9kxYGhsiU4yq_9Gg_GjLacFH94pi2e/v</a>
				4. Mc Cave Thiele Graph	<a href="https://drive.google.com/file/d/1F7hdDtcf9unnTGH70iypXCZwY59NPsxX/">https://drive.google.com/file/d/1F7hdDtcf9unnTGH70iypXCZwY59NPsxX/</a>
v	Kumari Megha	Chemical Engineering	1	1. Introduction to Subject	<a href="https://mega.nz/file/p9ZFHazJ#ba3HQrObwWuF5yMnt-F7FC8UQimWLRH-">https://mega.nz/file/p9ZFHazJ#ba3HQrObwWuF5yMnt-F7FC8UQimWLRH-</a>
				2. System and surroundings	<a href="https://mega.nz/file/k1Rn0IbA#PNHfWhK3SWtRgOyMIQH3fRUU8fodq4v">https://mega.nz/file/k1Rn0IbA#PNHfWhK3SWtRgOyMIQH3fRUU8fodq4v</a>
				3. Laws of thermodynamic	<a href="https://mega.nz/file/98RzhYjK#J8dfJ7EAlLZ_3BkwLiTywlnphaCwAlaqeqC">https://mega.nz/file/98RzhYjK#J8dfJ7EAlLZ_3BkwLiTywlnphaCwAlaqeqC</a>
			2	1. Basic Concept	<a href="https://drive.google.com/file/d/1o00Je0ykD8EwyjFy1vwdzx2VNA2GOJ2s">https://drive.google.com/file/d/1o00Je0ykD8EwyjFy1vwdzx2VNA2GOJ2s</a>

				2. Basic Concept and Definition	<a href="https://drive.google.com/file/d/1o00Je0ykD8EwyjFy1vwdzx2VNA2GOJ2s">https://drive.google.com/file/d/1o00Je0ykD8EwyjFy1vwdzx2VNA2GOJ2s</a>
				3. First Law of Thermodynamic	<a href="https://drive.google.com/file/d/1f7nuH5WFckD1fDN89j-4k-yN6SrlcCTs/v">https://drive.google.com/file/d/1f7nuH5WFckD1fDN89j-4k-yN6SrlcCTs/v</a>
			3	1. Volumetric Properties of Fluid	<a href="https://mega.nz/file/FtYgEbZQ#dviwNlg_RBmgLYg6rf8UGYUBjD10ZDM8p">https://mega.nz/file/FtYgEbZQ#dviwNlg_RBmgLYg6rf8UGYUBjD10ZDM8p</a>
III	Kumari Megha	Chemical technology 1	1	1. Unit Operations	<a href="https://mega.nz/file/ogIXzQwb#CY6CoiNLufz37tuXSeKmfmaxYBekkqv19j0">https://mega.nz/file/ogIXzQwb#CY6CoiNLufz37tuXSeKmfmaxYBekkqv19j0</a>
				2. Unit Processes	<a href="https://mega.nz/file/ogIXzQwb#CY6CoiNLufz37tuXSeKmfmaxYBekkqv19j0">https://mega.nz/file/ogIXzQwb#CY6CoiNLufz37tuXSeKmfmaxYBekkqv19j0</a>
			2	1. Frasch Process Sulfur	<a href="https://mega.nz/file/EoAAWTJI#OE3dje0adx5vto8qJw8755gc4M-ZC60fW">https://mega.nz/file/EoAAWTJI#OE3dje0adx5vto8qJw8755gc4M-ZC60fW</a>
				2. H <sub>2</sub> S Oxidation	<a href="https://drive.google.com/file/d/1Q2Agt7Asd6ot8tFqIJWPwtzrZlf2xLgQ/v">https://drive.google.com/file/d/1Q2Agt7Asd6ot8tFqIJWPwtzrZlf2xLgQ/v</a>
				3. Sulfur Industry Finnish	<a href="https://drive.google.com/file/d/1Hp0dj7UXqYrwMUKSTYXwXbswnn7Nlu0">https://drive.google.com/file/d/1Hp0dj7UXqYrwMUKSTYXwXbswnn7Nlu0</a>
				4. Sulfuric Acid	<a href="https://mega.nz/file/EoAAWTJI#OE3dje0adx5vto8qJw8755gc4M-ZC60fW">https://mega.nz/file/EoAAWTJI#OE3dje0adx5vto8qJw8755gc4M-ZC60fW</a>
			3	1. Cement Industry	<a href="https://mega.nz/file/dlYQlZIR#gRigd2nRii7l6vJtKGPiz0OmKjUGftF2eyr0r2">https://mega.nz/file/dlYQlZIR#gRigd2nRii7l6vJtKGPiz0OmKjUGftF2eyr0r2</a>
V	Shilpa Rai	Petroleum Refinery	1	1. Introduction of Petroleum Refinery	<a href="https://drive.google.com/file/d/1gnEUrybZ7yglUxwdclrHEWusmytLCY14/">https://drive.google.com/file/d/1gnEUrybZ7yglUxwdclrHEWusmytLCY14/</a>
				2. Origin and composition of Petroleum	<a href="https://drive.google.com/file/d/1-uVhN8g8JQWYiqPbmhOwOhto9eHkitP">https://drive.google.com/file/d/1-uVhN8g8JQWYiqPbmhOwOhto9eHkitP</a>
			3	1. Petroleum Processing and	<a href="https://drive.google.com/file/d/12pXLcc_1UZ09ZU727l9josCGwb4_1-/v">https://drive.google.com/file/d/12pXLcc_1UZ09ZU727l9josCGwb4_1-/v</a>

				2. Distillation Characteristics	<a href="https://drive.google.com/file/d/12wU9CdJ40o6Kgizg_Y1Tauxr5Ifzcw3a/v">https://drive.google.com/file/d/12wU9CdJ40o6Kgizg_Y1Tauxr5Ifzcw3a/v</a>
				3. Important properties of petroleum	<a href="https://drive.google.com/file/d/13nCCwKaATzQgFfzejA04TtAwDDaxDCUe">https://drive.google.com/file/d/13nCCwKaATzQgFfzejA04TtAwDDaxDCUe</a>
				4. Important petroleum products	<a href="https://drive.google.com/file/d/13gwDZ33eWLUIRxpRC081xHTCMheNxZ">https://drive.google.com/file/d/13gwDZ33eWLUIRxpRC081xHTCMheNxZ</a>
				5. Production of LPG	<a href="https://drive.google.com/file/d/13puVyitvm5OVsmmQ2NyqdbNMJS7PF2">https://drive.google.com/file/d/13puVyitvm5OVsmmQ2NyqdbNMJS7PF2</a>
			2	1. Theories of origins of petroleum	<a href="https://drive.google.com/file/d/14ZthYGJ1nCnrmYqygBl3I0xnefMz4bTN/">https://drive.google.com/file/d/14ZthYGJ1nCnrmYqygBl3I0xnefMz4bTN/</a>
				2. Detection of petroleum	<a href="https://drive.google.com/file/d/14pWQiybyQdzgYKuczKplzV_hfp_lzgP/v">https://drive.google.com/file/d/14pWQiybyQdzgYKuczKplzV_hfp_lzgP/v</a>
V	P N Deshpande	Mechanical Operations in Chemical Engineering	1	1. Properties & handling of particulate solids	<a href="https://drive.google.com/file/d/19TX_TKi77L8GkohwwWC4yCOByXRlId2">https://drive.google.com/file/d/19TX_TKi77L8GkohwwWC4yCOByXRlId2</a>
				2. Properties & handling of particulate solids (UNIT-1)	<a href="https://drive.google.com/file/d/19UeulE9Udq5CWrrzz6vvKNeKJ7OimAwm">https://drive.google.com/file/d/19UeulE9Udq5CWrrzz6vvKNeKJ7OimAwm</a>
				3. Properties & handling of particulate solids, unit-1, screen analysis, effectiveness of screen.	<a href="https://drive.google.com/file/d/1B2cHvBFLTZ27PaI9MhkCb_tjQxhLk6-k/v">https://drive.google.com/file/d/1B2cHvBFLTZ27PaI9MhkCb_tjQxhLk6-k/v</a>
				4. Properties & handling of particulate solids (unit-1).	<a href="https://drive.google.com/file/d/1Cf8YmUHtxmJAl8UyGFzYdqLj6w9WG3">https://drive.google.com/file/d/1Cf8YmUHtxmJAl8UyGFzYdqLj6w9WG3</a>

			<b>2</b>	1. SIZE REDUCTION (Introduction, necessity laws	<a href="https://drive.google.com/file/d/1CWDldHR_A4kMTIeQ_zre7k5rreGUtIry/">https://drive.google.com/file/d/1CWDldHR_A4kMTIeQ_zre7k5rreGUtIry/</a>