

UTKALMANI GOPABANDHU INSTITUTE OF ENGINEERING, ROURKELA



LESSON PLAN

SUBJECT-MASS TRANSFER-II

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WEEK	Topics covered
WEEK 1	Introduction to Mass transfer Wet and dry bulb temperature
	Wet and dry bulb temperature
	Wet and dry bulb temperature
	The principle of wet blub temperature theory
WEEK 2	Illustrate humidity chart and explain different methods of measurement of Humidity
	Illustrate humidity chart and explain different methods of measurement of Humidity
	Different methods of humidification and dehumidification
WEEK 3	Different methods of humidification and dehumidification
	The construction and working of natural and mechanical draft cooling tower
	The construction and working of natural and mechanical draft cooling tower
WEEK 4	Doubt clear class
	Doubt clear class
	Solve simple problems
	Solve simple problems
WEEK 5	Solve simple problems
	Introduction to drying
	Moisture content-equilibrium, unbound, free moisture
	Moisture content-equilibrium, unbound, free moisture
WEEK 6	The methods of removing liquids from solids
	The methods of removing liquids from solids
	Illustrate constant rate and falling rate period
	Illustrate constant rate and falling rate period
WEEK 7	Solve simple problems
	Solve simple problems

	The construction and working principle of traydryer
WEEK 8	The construction and working principle of rotarydryer
	The construction and working principle of spraydryer
	The construction and working principle of flashdryer, fluidized bed dryer
WEEK 9	The construction and working principle of dryerfor heat sensitive materials
	Solve simple problems
	Liquid extraction and leaching
WEEK 10	Liquid extraction and leaching
	Different types of extraction
	The principle of solid liquid extraction
WEEK 11	Batch and continuous leaching, Solid-Liquid
	Batch and continuous leaching, Solid-Liquidextraction equipments
	The principal of liquid-liquid extraction
WEEK 12	The principal of liquid-liquid extraction
	The parameter in choice of solvent for liquid-liquid extraction
	The parameter in choice of solvent for liquid-liquid extraction
	Construction and working principle of liquid-liquid extraction equipment and solid liquid extraction equipment
WEEK 13	Construction and working principle of liquid- liquid extraction equipment and solid liquidextraction equipment
	Construction and working principle of liquid-liquid extraction equipment and solid liquid extraction equipment
	Solve simple problems
WEEK 14	Solve simple problems
	Define crystallization
	Principle of crystallization
	Principle of crystallization
WEEK 15	Principle of crystallization
	Construction and working of different types ofbatch and continuous crystallizer
	Construction and working of different types ofbatch and continuous crystallizer
	Construction and working of different types ofbatch and continuous crystallizer
WEEK 16	Construction and working of different types ofbatch and continuous crystallizer
	Construction and working of different types ofbatch and continuous crystallizer
	Construction and working of different types ofbatch and continuous crystallizer
	Construction and working of different types ofbatch and continuous crystallizer
WEEK 17	Solve simple problems
	Solve simple problems
	Solve simple problems
	Solve simple problems

BOOKS FOR REFERENCE:

- Chemical Technology by C Dryden, Tata Mc Grawhill Publication
- Chemical Process Industries by N Shreeve, Tata Mc Grawhill Publication

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