



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Kakinada-533003, Andhra Pradesh (India)

Program wise Curriculum Analysis of (R16)

Program Code	Program Name	No of Courses having focus on			Total Courses	Percentage
		Employability	Entrepreneurship	Skill development		
08	B.Tech – chemical engg.	02	02	23	86	32


Coordinator


HOD

Head
Dept. of Petroleum Engineering &
Petrochemical Engineering, UCEK (A)
J.N.T. University Kakinada
Kakinada - 533 003 A.P India


REGISTRAR
J.N.T. University Kakinada
Kakinada-533003



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Course wise Curriculum Analysis (R16)

Program Code: 08

Program Name: B.Tech –Chemical engg.

Year: 1

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16ES1101	English - I			
R16BS1102	Mathematics - I			
R16ES1103	Engineering Chemistry			
R16BS1104	Engineering Mechanics			
R16BS1105	Computer Programming			
R16ES1106	Environmental Studies			
R16HS1107	Engineering/ Applied Chemistry Laboratory			YES
R16BS1108	English - Communication Skills Lab - I			YES
R16ES1109	C Programming Lab			YES
	Total	0	0	3



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Course wise Curriculum Analysis (R16)

Program Code: 08

Program Name: B.Tech – Chemical engg.

Year: 1

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R161- HS1201	English - II			
R162-BS1202	Mathematics - II			
R163-BS1203	Mathematics - III			
R164-ES1204	Engineering Physics			
R165- HS1205	Elements of Mechanical Engineering			
R166-ES1206	Engineering Drawing			
R167-BS1207	English - Communication Skills Lab - II			YES
R168- HS1208	Engineering/ Applied Physics Lab			YES
R169-ES1209	Engineering/ Applied Physics - Virtual Labs - Assignments			YES
R16PCC1210	Engineering Workshop & IT Workshop			YES
	Total	0	0	04



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Year: 2

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC2101	Complex Variables			
R16PCC2102	Basic Electrical & Electronics Engineering			
R16PCC2103	Organic Chemistry			
R16PCC2104	Physical Chemistry			
R16PCC2105	Chemical Process Calculations			
R16PCC2106	Materials Science & Engineering			
R16PCC2107	Basic Engineering (Mech. + Elec.) Lab			YES
R16PCC2108	Physical & Organic Chemistry Lab			YES
R16MC2109	Managerial Economics & Financial Analysis		YES	
	Total	0	1	2



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Program Name: B.Tech – Chemical engg.

Year: 2

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC2201	Probability & Statistics			
R16PCC2202	Momentum Transfer			
R16PCC2203	Mechanical Unit Operations			
R16PCC2204	Chemical Engineering Thermodynamics-I			
R16PCC2205	Process Heat Transfer			
R16PCC2206	Process Instrumentation			
R16PCC2207	Momentum Transfer Lab			YES
R16PCC2208	Process Heat Transfer Lab			YES
R16MC2209	Professional Ethics & Human Values			
	Total	0	0	02



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Year: 3

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC3101	Management Science			
R16PCC3102	Petroleum Refinery Engineering			
R16PCC3103	Chemical Engineering Thermodynamics-II			
R16PCC3104	Petrochemical Engineering - I			
R16PCC3105	Mass Transfer Operations - I			
R16PCC3106	Mathematical Methods Lab			Yes
R16PCC3107	Petroleum Analysis Lab			Yes
R16PCC3108	Mass Transfer Operations Lab - I			YES
R16PCC3109	Industrial Visits	YES		
	Total	01	0	03



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Year: 3

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC3201	Petrochemical Engineering- II			
R16PCC3202	Mass Transfer Operations- II			
R16PCC3203	Chemical Reaction Engineering -I			
R16PCC3204	Process Dynamics & Control			
R16PCC3205A	Electronic Instrumentation			
R16PCC3205B	Big Data Analytics			
R16PCC3205C	Alternative Energy Sources for Automobiles			
R16PCC3205D	Waste Water Management			
R16PCC3205E	Fundamentals of Liquefied Natural Gas			
R16PCC3205F	Computational Fluid Dynamics			
R16PCC3206	Mass Transfer Operations Lab - II			YES
R16PCC3207	Instrumentation, Process Dynamics & Control Lab			YES
R16PCC3208	Chemical Reaction Engineering Lab			YES
R16PCC3209	Summer Internship (4-6 weeks)	YES		
R16MC3210	Mini Project			YES
	Total	01	00	4



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Program Code: 08

Program Name: B.Tech – Chemical engg.

Year: 4

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC4101	Transport Phenomena			
R16PCC4102	Plant Design for Chemical Engineers			
R16PCC4103	Chemical Reaction Engineering- II			
R16PCC4104	Process Modelling & Simulation			
R16PCC4105A	Petroleum Production Engineering			
R16PCC4105B	Fluidization Engineering			
R16PCC4105C	Process Intensification			
R16PCC4105D	Optimization Techniques			
R16PCC4106A	Pipeline Engineering			
R16PCC4106B	FCC Technology			
R16PCC4106C	Process Integration			
R16PCC4106D	Computational Methods in Chemical Engineering			
R16PCC4107	Process Equipment Design & Drawing Lab			YES
R16PCC4108	Simulation Lab			YES
R16MC4109	IPR & Patents		YES	
	Total		01	02



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Year: 4

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PCC4201	Industrial Safety & Hazard Management			YES
R16PCC4202	Process Engineering Economics			
R16PCC4203	Multicomponent Distillation			
R16PCC4204A	Natural Gas Engineering			
R16PCC4204B	Prevention of Pollution through Process Integration			
R16PCC4204C	Nanotechnology			
R16PCC4204D	Design & Analysis of Experiments			
R16PCC4205	Seminar (Presentation of SIP Report)			YES
R16PCC4206	Project			YES
	Total			03