



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		
27	B.Tech – Petroleum engg.	03	01	22	83	32

NM
Coordinator

KCB
HOD
Head
Dept. of Petroleum Engineering &
Petrochemical Engineering, UCEK (A)
J.N.T. University Kakinada

[Signature]
REGISTRAR
J.N.T. University Kakinada
Kakinada-533003



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Course wise Curriculum Analysis (R16)

Program Code: 27

Program Name: B.Tech –Petroleum engg.

Year: 1

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16HS1101	English – I			
R16BS1102	Mathematics - I			
R16ES1103	Engineering Chemistry			
R16ES1104	Elements of Mechanical Engineering			
R16BS1105	Engineering Drawing			
R16ES1106	Environmental Studies			
R16HS1107	Engineering/Applied Chemistry Laboratory			Yes
				YES
R16BS1108	English - Communication Skills Lab – I			
R16ES1109	Engineering Workshop			YES
	Total	0	0	3



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Course wise Curriculum Analysis (R16)

Program Code: 27

Program Name: B.Tech – Petroleum engg.

Year: 1

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16HS1201	English – II			YES
R16BS1202	Mathematics – II(Numerical methods &Integral transforms)			
R16BS1203	Mathematics – III (Differential equations)			
R16BS1204	Engineering Physics			
R16HS1205	Engineering Mechanics			
R16ES1206	Computer Programming			
R16BS1207	English - Communication Skills Lab - II			YES
R16HS1208	Engineering /AppliedPhysics Lab			YES
R16ES1209	Engineering /Applied Physics – Virtual Labs - Assignments			YES
R16PE1210	Computer Programming - Lab			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)
R16PE2101	Complex Variables			
R16PE2102	Basic Electrical & Electronics Engineering			
R16PE2103	General Geology			
R16PE2104	Surveying & Offshore Structures			
R16PE2105	Chemical Process Calculations			
R16PE2106	Materials Science & Engineering			
R16PE2107	Basic Engineering (Mech. + Elec.) Lab			YES
R16PE2108	Geology & Surveying Lab			YES
R16MC2109	Managerial Economics & Financial Analysis			YES
	Total	0	00	02



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Program Name: B.Tech – Petroleum engg.

Year: 2

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PE2201	Probability & Statistics			
R16PE2202	Momentum Transfer			
R16PE2203	Petroleum Geology			
R16PE2204	Thermodynamics for Petroleum Engineers			
R16PE2205	Process Heat Transfer			
R16PE2206	Petroleum Exploration			
R16PE2207	Momentum Transfer Lab			YES
R16PE2208	Process Heat Transfer Lab			YES
R16MC2209	Professional Ethics & Human Values			
	Total	0	0	02



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Program Name: B.Tech – Petroleum engg.

Year: 3

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PE3101	Management Science			
R16PE3102	Process Dynamics & Control			
R16PE3103	Process Instrumentation			
R16PE3104	Well Logging & Formation Evaluation			
R16PE3105	Drilling Technology			
R16PE3106	Mathematical Methods Lab			Yes
R16PE3107	Instrumentation, Process Dynamics & Control Lab			Yes
R16PE3108	Drilling Fluids Lab			YES
R16PE3109	Industrial Visits	YES		
R16MC3110	SWAYAM-NPTEL Courses			
	Total	01	0	03



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Program Name: B.Tech – Petroleum engg.

Year: 3

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PE3201	Well Completions, Testing & Servicing			
R16PE3202	Petroleum Production Engineering			
R16PE3203	Petroleum Reservoir Engineering-I	YES		
R16PE3204	Petroleum Refinery & Petrochemical Engineering			
R16PE3205A	Electronic Instrumentation			
R16PE3205B	Big Data Analytics			
R16PE3205C	Alternative Energy Sources for Automobiles			
R16PE3205D	Waste Water Management			
R16PE3205E	Fundamentals of Liquefied Natural Gas			
R16PE3205F	Computational Fluid Dynamics			
R16PE3206	Drilling Simulation Lab			YES
R16PE3207	Petroleum Analysis Lab			YES
R16PE3208	Petroleum Reservoir Engineering Lab			YES
R16PE3209	Summer Internship (4-6 weeks)		YES	
R16MC3210	Mini Project			YES
	Total	01	01	4



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Program Code: 27

Program Name: B.Tech – Petroleum engg.

Year: 4

Semester: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PE4101	Integrated Asset Management			
R16PE4102	Petroleum Reservoir Engineering - II	YES		
R16PE4103	Surface Production Operations			
R16PE4104	Oil & Gas Processing Plant Design			
R16PE4105A	Natural Gas Hydrates			
R16PE4105B	Pipeline Engineering			
R16PE4105C	Horizontal Well Technology			
R16PE4106A	Coal Bed Methane Engineering			
R16PE4106B	Offshore Engineering			
R16PE4106C	Reservoir Stimulation			
R16PE4107	IPR & Patents			
R16PE4108	Petroleum Equipment Design & Simulation Lab			YES
R16PE4109	Petroleum Reservoir Simulation Lab			YES
	Total	01	00	02



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Program Name: B.Tech – Petroleum engg.

Year: 4

Semester: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
R16PE4201	EOR Techniques			
R16PE4202	HSE & FE in Petroleum Industry			
R16PE4203	Petroleum Economics, Policies & Regulations			
R16PE4204A	Shale Gas Reservoir Engineering			YES
R16PE4204B	Subsea Engineering			YES
R16PE4206	Project			
	Total			02

