

Kakinada-533003, Andhra Pradesh (India)

Program wise Curriculum Analysis of (R19)

Program Code	Program Name	No of Courses having focus on			Total Courses	Percentage
	Employability Entrepreneurship Skill developmen	Skill development				
Code	B.Tech – Petroleum engg.	02	03	35	85	47%

Coordinator

Heao

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



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech – Petroleum engg.

Year: 1

Course	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
BS	Mathematics – I			
BS	Engineering Physics			
PCC	Introduction to Petroleum Engineering			
ES	Programming for Problem Solving		_	
ES	Engineering Drawing			YES
BS	Engineering Physics Lab			Yes
ES	Programming for Problem Solving Lab			Yes
HSSMS	English Communication Skills Lab- I			YES
BS	Physics Virtual Lab			YES
PR	Engineering Exploration Project			YES
*MC	Constitution of India			
	Total	0	0	6



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech – Petroleum engg.

Year: 1

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
BS	Mathematics – I			YES
BS	Engineering Physics			
PCC	Introduction to Petroleum Engineering			
ES	Programming for Problem Solving			
ES	Engineering Drawing			
BS	Engineering Physics Lab			YES
ES	Programming for Problem Solving Lab			YES
HSSMS	English Communication Skills Lab- I			YES
BS	Physics Virtual Lab			
PR	Engineering Exploration Project			
*MC	Constitution of India			YES
	Total	0	0	05



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech - Petroleum engg.

Year: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
BS	Mathematics- IV			
HSSMS	Managerial Economics & Financial Accounting			
ES	Basic Electrical & Electronics Engineering			·
PCC	Petroleum Geology			
PCC	Chemical Process Principles			
PCC	Momentum Transfer			
PCC	Petroleum Geology Lab			YES
ES	Basic Engineering (Mech. + Elec.) Lab			YES
PCC	Momentum Transfer Lab			YES
*MC	Essence of Indian Traditional Knowledge			
*MC	Physical Fitness Activities			
MOOCS (NPTEL/SWAYAM) for Honors /Minor Degree				
	Total	0	0	03



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech - Petroleum engg.

Year: 2

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
ES	Elements of Mechanical Engineering			(1.00)110)
PCC	Process Heat Transfer			
ES	Materials Science & Engineering			. " "
PCC	Petroleum Exploration			· · · · · · · · · · · · · · · · · · ·
PCC	Thermodynamics for Petroleum Engineers			 -
PCC	Instrumentation, Process Dynamics & Control			
PCC	Process Heat Transfer Lab			YES
PCC	Instrumentation, Process Dynamics & Control Lab			YES
HSSMS	Socially Relevant Projects			YES
*MC	Physical Fitness Activities			
	MOOCS (NPTEL/SWAYAM) for Honors/Minor Degree			YES
	Total	0	0	04



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech - Petroleum engg.

Year: 3

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
PCC	Well Logging & Formation Evaluation			
PCC	Drilling & Well Completions			
PCC	Petroleum Reservoir Engineering – I			
PCC	Petroleum Production Engineering			
PEC	PROFESSIONAL ELECTIVE – I			
	i. CBM Reservoir Engineering ii. Equation of State and PVT Analysis			
PCC	Mathematical methods for petroleum engineers - Laboratory			Yes
PCC	Drilling Fluids - Laboratory			Yes
PCC	Drilling Simulation - Laboratory			YES
PCC	Socially Relevant Project for Petroleum Engineers			YES
*MC	Physical Fitness Activities			
PT	Industrial Visits (Local & Outside)			YES
MOOCS (NPTEL/SWAYAM) for Honors/Minor Degree				
	Total	0	0	05



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech – Petroleum engg.

Year: 3

Course	Course name	Employability	Entrepreneurship	Skill development
code		(Yes/No)	(Yes/No)	(Yes/No)
PCC	Petroleum Refinery & Petrochemical Engineering			
PCC	Petroleum Reservoir Engineering-II			
OEC	OPEN ELECTIVE-I(for other Branches) i. Petroleum Exploration and Engineering ii. Fundamentals of Offshore Operations			
PEC	iii. Fundamentals of Oil and Gas Production. PROFESSIONAL ELECTIVE – II i. Petroleum Asset Management		YES	-
PEC	Acidizing Concepts and Design PROFESSIONAL ELECTIVE – III i. Production Optimization using Nodal Analysis Fundamental of Liquefied Natural Gas			
HSS	Universal human values 2: understanding harmony			Yes
PCC	Petroleum Reservoir Engineering - Laboratory	·		Yes
PCC	Petroleum Analysis - Laboratory			
*MC	IPR & Patents	YES		
*MC	Employability Skills – I: Python Programming			YES
PT	Summer Internship (4 - 6 Weeks)			YES
	MOOCS (NPTEL/SWAYAM) for Honors /Minor Degree			
	Total	01	01	4



Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech - Petroleum engg.

Year: 4

Course	Course name	Employability	Entrepreneurship	Skill development
code		(Yes/No)	(Yes/No)	(Yes/No)
PCC	HSE in Petroleum Industry			
PCC	Design and Operation of Surface Facilities		YES	<i>'</i>
PEC	PROFESSIONAL ELECTIVE – IV i. Enhanced Oil Recovery Techniques. Advanced Well Completion Engineering.			
PEE	PROFESSIONAL ELECTIVE – V i. Subsea Engineering. Petroleum Economics, Policies and Regulations.		_	=
OEC	OPEN ELECTIVE – II (for other branches) i. Corrosion Control in Petroleum Industry. Unconventional Hydrocarbon Resources.			
PCC	Petroleum Equipment Design & Simulation - Laboratory			Yes
PCC	Petroleum Reservoir Simulation - Laboratory	All III		Yes
PR	Presentation/Seminar (SIP Report)			YES
PR	Project work - Phase 1			YES
*MC	Professional Ethics And Human values			
*MC	Employability Skills - II: Data Sciences	01		
	MOOCS (NPTEL/SWAYAM) for Honors /Minor Degree			YES
	Total	01	01	05



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Course wise Curriculum Analysis (R19)

Program Code:

Program Name: B.Tech – Petroleum engg.

Year: 4

Course code	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
	PROFESSIONAL ELECTIVE – VI			
PEC	i. Offshore Deep water Drilling and Production			
	Pipeline Engineering			
	PROFESSIONAL ELECTIVE – VII			
PEC	i. Applied Mathematics in Reservoir Engineering			
	Advances in Seismic Exploration			
	OPEN ELECTIVE – III (for Petroleum Engineering)		YES	YES
OEC	i. NPTEL-Data Analysis & Decision making			
OEC	ii. NPTEL- E-Business	2		
	NPTEL- Innovation, Business Models & Entrepreneurship			
PR	Project Work - Phase 2			YES
*MC	Physical Fitness Activities			YES
MOOCS				
(NPTEL/SWAYAM)				
for Honors				
/Minor Degree				
	Total		01	03

