

## 1st sem

1	PY111	Classical Physics	IS	3-1-0	11
2	CY111	Organic & Hydrocarbon Synthesis	IS	3-1-0	11
3	MA123	Applied Mathematics - I	IS	3-1-0	11
4	CH161	Engineering Thermodynamics	IE	3-1-0	11
5	ME131	Workshop	EP	0-0-3	3
6	PY101L	Physics Lab	IS	0-0-2/2	1
7	CY101L	Chemistry Lab	IS	0-0-2/2	1
		<b>Total Credits</b>			<b>49</b>
	LM101	Basic English	LM	1-2-0	7
	HU101	Universal Human Value	HU	1-1-0	5

## 2nd sem

1	PY121	Modern Physics	IS	2-1-0	8
2	MA124	Applied Mathematics - II	IS	3-1-0	11
3	CY121	Inorganic & Physical Chemistry	IS	3-1-0	11
4	CS101	Computer Programming	IE	3-1-0	11
5	CH121	Fluid Mechanics	IE	3-1-0	11

6	PE101	Petroleum Engineering Practices	EP	1-0-2	5
7	PY121L	Physics Lab	IS	0-0-2/2	1
8	CY121L	Chemistry Lab	IS	0-0-2/2	1
9	ME121	Engineering Graphics	EP	0-0-3	3
10	CS101L	Computer Programming Lab	IE	0-0-2	2
		<b>Total Credits</b>			<b>64</b>
	HU102	Community Internship	HU	1-1-0	5

### 3rd sem

1	PE202	Fundamentals of Mechanical Engineering	IE	3-0-0	9
2	PE241	Reservoir Engineering-I	DC	3-1-0	11
3	PE221	Introductory Geosciences	DC	2-0-0	6
4	MA222	Applied Mathematics - III	IS	3-1-0	11
5	CH222	Fluid Flow Operations	DC	2-1-0	8
6	ECE102	Fundamentals of Electronics Engineering	IE	3-1-0	11
7	ECE102L	Fundamentals of Electronics Engineering Lab	IE	0-0-2	2
8	CH332L	Fluid Flow and Mechanical Operations Lab	DC	0-0-2	2
9	PE221L	Geology Lab	DC	0-0-2	2

		<b>Total Credits</b>			<b>62</b>
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<b>4th sem</b>					
1	PE222	Petroleum Geology	DC	3-0-0	9
2	PE231	Production Engineering	DC	3-0-0	9
3	PE242	Reservoir Engineering - II	DC	2-0-0	6
4	PE211	Drilling Technology	DC	3-0-0	9
5	CH232	Heat and Mass Transfer	IE	3-1-0	11
6	PC111	Professional Communications	LM	2-1-0	8
7	PE211L	Drilling Technology Lab	DC	0-0-2	2
8	PE242L	Reservoir Engineering Lab	DC	0-0-2	2
		<b>Total Credits</b>			<b>56</b>
	GD111	Group Discussion	EP	0-0-2	2

<b>5th sem</b>					
1	PE321	Formation Evaluation	DC	3-0-0	9
2	PE341	Well Test Analysis	DC	3-0-0	9
3	PE331	Offshore Oil and Gas Technology	DC	3-0-0	9
4	PE312	Advanced Drilling Technology	DC	3-0-0	9

5	PE351	Pipeline Engineering	DC	3-0-0	9
6	CH301	Process Instrumentation	DC	2-0-0	6
7	PE321L	Formation Evaluation Lab	DC	0-0-2	2
8	PE341L	Well Test Analysis Lab	DC	0-0-2	2
9	PE418	B.Tech Project	DP	0-0-5	5
		<b>Total Credits</b>			<b>60</b>
		Seminar	EP	0-0-2	2

<b>6th sem</b>					
1	PE322	Petroleum Exploration and Prospecting	DC	2-0-0	6
2	PE332	Natural Gas Engineering	DC	3-0-0	9
3	PE311	Petroleum Facilities Design & Operation	DC	3-1-0	11
4	CH342	Process Dynamics & Controls	DC	3-1-0	11
5	CH212	Material Science and Strength of Materials	IE	3-0-0	9
6	PE322L	Petroleum Exploration and Prospecting Lab	DC	0-0-2	2
7	CH342L	Process Dynamics & Controls Lab	DC	0-0-2	2
8	PE419	B.Tech Project	DP	0-0-5	5
		<b>Total Credits</b>			<b>55</b>

<b>Summer Internship</b>	<b>10</b>
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<b>7th sem</b>					
1	PE421	Unconventional Hydrocarbon Resources	DC	2-0-0	6
2	PE442	Reservoir Modelling and Simulation	DC	2-0-0	6
3	PE431	EOR Techniques	DC	2-0-0	6
4		DE 1	DE	2-0-0	6
5		DE 2	DE	2-0-0	6
6		Open Elective	OE	3-0-0	9
7	MT5405	Foundations of Management	LM	3-0-0	9
8	HU331	Organizational Psychology	HU	2-0-0	6
9	PE442L	Reservoir Modelling and Simulation Lab	DC	0-0-2	2
		<b>Total Credits</b>			<b>56</b>

<b>8th sem</b>					
1	PE402	Health Safety and Environment	DC	3-0-0	9
2	CH202	Corrosion Engineering	DC	2-0-0	6
3		DE 3	DE	3-0-0	9
4		DE 4	DE	3-0-0	9

5		Open Elective	OE	3-0-0	9
6		M-2 (Elective)	LM	3-0-0	9
7	HU313	Sociology of Industry and Work Culture	HU	2-0-0	6
		<b>Total Credits</b>			<b>57</b>

## Summary of credits in different categories

Code	Category	Min	Max	Offered	
4	HU	Humanities and Social Science	22	22	22
11	IS	Science	70	90	78
9	IE	Institute Engineering	40	70	77
5	EP	Engineering Drawing, Workshop	18	24	15
3	LM	Language & Management	18	24	26
31	DC	Department Core	145	190	197
4	DE	Department Elective	30	75	30
2	OE	Open Elective	15	20	18
2	DP	Project/ Industrial Visit	20	50	10
	<b>Total</b>		<b>440</b>	<b>490</b>	<b>473</b>

## Department Electives Offered

	Reservoir Engineering	Production Engineering	Drilling Engineering	Pipeline Engineering
DE1 (2-0-0)	Petroleum Field Resource Management – PE443	City Gas Distribution - PE451	Wellbore Geomechanics - PE411	City Gas Distribution - PE451
DE2 (2-0-0)	Development of Oil and Gas Fields - PE445	Workover and Well stimulation – PE432	Workover and Well stimulation – PE432	LNG and NGLs - PE452
DE3 (3-0-0)	Integrated Reservoir Studies – PE441	Flow Assurance – PE-546	Drilling system design - PE412	Flow Assurance – PE-542
DE4 (3-0-0)	Sedimentology and Structural Geology – PE323	Computational Fluid Dynamics – PE 444	Computational Fluid Dynamics – PE 444	Computational Fluid Dynamics – PE 444

	Reservoir Engineering	Production Engineering	Drilling Engineering	Pipeline Engineering
DE1 (2-0-0)	Petroleum Field Resource Management – PE443	City Gas Distribution	Wellbore Geomechanics	City Gas Distribution
DE2 (2-0-0)	Development of Oil and Gas Fields	Workover and Well stimulation – PE432	Workover and Well stimulation – PE432	LNG and NGLs
DE3 (3-0-0)	Integrated Reservoir Studies – PE441	Flow Assurance – PE-546	Drilling system design	Flow Assurance – PE-546
DE4 (3-0-0)	Sedimentology and Structural Geology – PE323	Computational Fluid Dynamics – PE 444	Computational Fluid Dynamics – PE 444	Computational Fluid Dynamics – PE 444