



Dt: 20-04-2016

Minutes of Board of Studies Meeting

Course :: B.Tech Petroleum Engineering

Minutes of Board of Studies (BOS) meeting of B. Tech Petroleum Engineering program held on 20-04-2016 at office Head of the department, Department of Chemical Engineering, Vignans University, Vadlamudi.

Agenda of the meeting:

1. To discuss and finalize structure and detailed syllabus for B. Tech Petroleum Engineering program applicable from 2016-17 admitted batch

The following members were part of the meeting

S. No	Name	Members	Signature
1.	Dr. Ramesh Naidu, Associate Professor and Head, Department of Chemical Engineering	Chairman, BOS	
2.	Prof. K. V. Rao, Programme Director, Petroleum Courses, JNTU Kakinada.	Invited member	
3.	Sri. CVG Krishna, Retried General Manager Oil India & Adjunct Professor, JNTU Kakinada	Invited member	
4.	Dr. Bhanghariah Pagala, Professor, Department of Chemical Engineering, VFSTR, Vadlamudi.	Internal Member	
5.	Dr. P. Ashok Kumar, Professor, Department of Chemical Engineering, VFSTR, Vadlamudi.	Internal Member	
6.	Sri. Venkata Dhananjanyulu Bandaru, Assistant Professor, Department of Chemical Engineering, VFSTR, Vadlamudi	Internal Member	



Minutes of the BOS Meeting

1. The chairman wished and welcomed all the members of BOS.
2. The chairman highlighted broad objectives of the proposed changes in the course structure of B. Tech Petroleum Engineering like.
3. The members of the BOS thoroughly looked at the proposals of the Department of Chemical Engineering in the light of suggestions made by experts and recommended a new course structure for B. Tech Petroleum Engineering program.
4. The members of the BOS thoroughly looked at the proposals of the Department of Chemical Engineering in the light of suggestions made by experts and recommended a new course structure for B. Tech Petroleum Engineering program.

Resolutions made after the discussion:

The following are the resolutions of the BoS meeting for R-16 B. Tech Petroleum Engineering:

1. Propose the course structure (*Appendix I*) and syllabus for all four years of B. Tech Programme.
2. Propose and approve detailed syllabus for the 4 year of B.Tech. Programme in Petroleum Engineering with effect from the academic year 2016-17. The proposed structure and syllabus are applicable for 2016 admitted batch onwards.
3. The regulation offers choice based credit system, credits to skill and exit options to the students.
4. Stakeholder's feedback is collected, analyzed and given utmost priority while designing the curriculum and their suggestions are implemented. As per the suggestion taken from all stakeholders 25% of syllabus has been revised from R13 to R16.
5. Theory courses amalgamated with laboratory sessions and Skill components added will enhance employability of students.
6. The Curriculum is encompassing the courses that enable employability or entrepreneurship or Skill development are listed in *Appendix II*
7. Inclusion of new courses in the curriculum is reviewed and is provided as *Appendix III*.



APPENDIX-I

I year I semester

Code	Course Title	L	T	P	C
1.	Engineering Mathematics-I	3	1	2	5
2.	Engineering Physics	3	-	-	3
3.	Technical English Communication	3	-	-	4
4.	Basics of Computers and Internet	3	-	2	4
5.	Computer Programming	3	-	2	5
6.	Basics of Engineering Products	3	1	2	4
7.	English Proficiency and Communication Skills	-	-	2	1
8.	Engineering Physics Laboratory	-	-	3	2
	Total	18	2	15	28

I year II semester

Code	Course Title	L	T	P	C
1.	Engineering Mathematics-II	3	1	2	5
2.	Engineering Chemistry	3	-	-	3
3.	Engineering Graphics	1	-	3	3
4.	Basics of Electrical and Electronics Engineering	3	-	2	4
5.	Engineering Chemistry Laboratory	-	-	3	2
6.	Environmental Science and Technology	2	-	-	2
7.	Workshop Practice	-	-	3	2
8.	Basics of Petroleum Engineering	3	1	-	4
	Total	15	2	13	25



III year I semester

Code	Course Title	L	T	P	C
1.	Process Dynamics and Control	3	-	2	4
2.	Drilling Technology	3	-	-	3
3.	Process Instrumentation	3	-	2	4
4.	Well Logging & Formation Evaluation	3	-	2	4
5.	Department Elective	3	-	-	3
6.	Open Elective	3	1	-	4
7.	Employability and Life Skills Elective	-	-	-	1
	Total	18	1	6	23

III year II semester

Code	Course Title	L	T	P	C
1.	Professional Ethics	2	-	-	2
2.	Petroleum Reservoir Engineering-I	3	-	2	4
3.	Petroleum Production Engineering	3	-	-	3
4.	Surface Production Operations	3	-	-	3
5.	Petroleum Economic and Asset Management	3	-	-	3
6.	Petroleum Analysis Laboratory	-	-	2	2
7.	Department Elective	3	-	-	3
8.	Open Elective	3	1	-	4
9.	Employability and Life Skills Elective	-	-	-	1
	Total	20	1	4	25



II year I semester

Code	Course Title	L	T	P	C
1.	Probability & Statistics	4	-	-	4
2.	Soft Skills Laboratory	-	-	2	1
3.	Fundamentals of Geology	3	-	2	4
4.	Petroleum Geology	3	1	-	4
5.	Surveying and Offshore Structure	3	1	-	4
6.	Chemical Process Calculations	3	1	-	4
7.	Momentum Transfer	3	-	2	4
8.	Employability and Life Skills Elective	-	-	1	1
	Total	19	3	6	26

II year II semester

Code	Course Title	L	T	P	C
1.	Professional Communication Laboratory	-	-	2	1
2.	Petroleum Exploration	3	1	-	4
3.	Petroleum Engineering Thermodynamics	3	1	-	4
4.	Drilling Fluid and Cementing Technology	3	-	2	4
5.	Process Heat Transfer	3	-	2	4
6.	Department Elective	3	-	-	3
7.	Open Elective	3	1	-	4
8.	Employability and Life Skills Elective	-	-	-	1
	Total	18	3	6	25



IV year I semester

Code	Course Title	L	T	P	C
1.	Management Science	3	-	-	3
2.	Health, Safety and Environmental Engineering	3	1	-	4
3.	Petroleum Engineering Equipment Design	3	-	2	4
4.	Petroleum Reservoir Engineering-II	3	-	2	4
5.	Enhanced Oil Recovery Methods	3	-	2	4
6.	Department Elective	3	-	-	3
7.	Open Elective	3	1	-	4
8.	Employability and Life Skills Elective	-	-	-	1
	Total	21	2	6	27

IV year II semester

Code	Course Title	L	T	P	C
1.	Project Work/Internship	-	-	30	15
	Total	-	-	30	15

* The courses that are highlighted denote implementation of Choice Based Credit System (CBCS)

DEPT. ELECTIVES

STREAM-1 (DOWN STREAM PROCESSING)

Petro Chemical Products
Petroleum Refinery Engineering
Fundamentals of LNG
Natural Gas Processing

STREAM-2 (UP STREAM EXPLORATION)

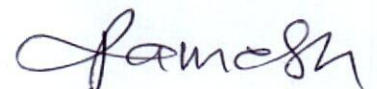
Natural Gas Hydrates and Coal Bed Methane
Advanced Natural Gas Engineering
Reservoir Modeling and Simulation
Reservoir Stimulation

STREAM-3 (CHEMICAL ENGINEERING)

Transport Phenomena
Mass Transfer Operations
Chemical Reaction Engineering
Computational Fluid Dynamics

INDIVIDUAL ELECTIVE COURSES

Conventional Energy Sources
Non Conventional Energy Sources
Energy Management and Auditing
Energy Integration


Chairman BoS



APPENDIX - II

List of courses that enable employability or entrepreneurship or skill development in the R-16 B. Tech – Petroleum Engineering

S. No	Semester (Year)	Course Name	Employability/ Entrepreneurship/ Skill development
1.	Semester II (First Year)	Basics of Petroleum Engineering	Employability
2.	Semester III (Second Year)	Momentum Transfer	Skill development
3.	Semester III (Second Year)	Petroleum Geology	Entrepreneurship
4.	Semester III (Second Year)	Fundamentals of Geology	Skill development
5.	Semester III (Second Year)	Surveying and Offshore Structure	Skill development
6.	Semester III (Second Year)	Chemical Process Calculations	Skill development
7.	Semester IV (Second Year)	Drilling Fluid and Cementing Technology	Skill development
8.	Semester IV (Second Year)	Petroleum Exploration	Skill development
9.	Semester IV (Second Year)	Petroleum Engineering Thermodynamics	Skill development
10.	Semester IV (Second Year)	Process Heat Transfer	Skill development

11.	Semester V (Third Year)	Drilling Technology	Skill development
12.	Semester V (Third Year)	Process Dynamics and Control	Skill development
13.	Semester V (Third Year)	Process Instrumentation	Skill development
14.	Semester V (Third Year)	Well Logging & Formation Evaluation	Skill development
15.	Semester VI (Third Year)	Petroleum Reservoir Engineering-I	Skill development
16.	Semester VII (Final Year)	Petroleum Reservoir Engineering-II	Skill development
17.	Semester VI (Third Year)	Petroleum Economic and Asset Management	Skill development
18.	Semester VI (Third Year)	Petroleum Production Engineering	Skill development
19.	Semester VI (Third Year)	Surface Production Operations	Skill development
20.	Semester VII (Final Year)	Enhanced Oil Recovery Methods	Skill development
21.	Semester VII (Final Year)	Health, Safety and Environmental Engineering	Skill development
22.	Semester VII (Final Year)	Petroleum Engineering Equipment Design	Skill development
23.	Semester VII (Third Year)	Fundamentals of LNG	Skill development
24.	Semester VI (Final Year)	Natural Gas Processing	Skill development
25.	Semester V (Third Year)	Natural Gas Hydrates and Coal Bed Methane	Employability

26.	Semester VI (Third Year)	Advance Natural Gas Engineering	Employability
27.	Semester VI (Final Year)	Reservoir Modelling and Simulation	Skill development
28.	Semester VI (Final Year)	Reservoir Stimulation	Skill development
29.	Semester II (First Year)	Transport Phenomena	Skill development
30.	Semester III (Second Year)	Mass Transfer Operations	Employability
31.	Semester III (Second Year)	Chemical Reaction Engineering	Employability
32.	Semester IV (Second Year)	Computational Fluid Dynamic	Skill development
33.	Semester (Second Year)	Conventional Energy Sources	Skill development
34.	Semester V (Third Year)	Energy Management and Auditing	Skill development
35.	Semester V (Third Year)	Energy Integration	Skill development
36.	Semester VI (Third Year)	Non-Conventional Energy Sources	Skill development
37.	Semester VI (Final Year)	Managerial Economics	Skill development
38.	Semester VII (Final Year)	Object Oriented Programming	Skill development
39.	Semester II (First Year)	Finance for Engineer	Skill development
40.	Semester III (Second Year)	Economic and Social Development of India	Skill development

41.	Semester III (Second Year)	Geography and Environmental Concern of India	Skill development
42.	Semester V (Third Year)	Web Technologies	Skill development
43.	Semester VI (Third Year)	Data Mining Techniques	Skill development
44.	Semester VI (Final Year)	Software Engineering	Skill development
45.	Semester VII (Final Year)	Database Management System	Skill development


Chairman BoS



APPENDIX - III

List of new courses in the R-16

B. Tech – Petroleum Engineering curriculum

S.No.	Course Name
1.	Basics of Petroleum Engineering
2.	Momentum Transfer
3.	Petroleum Geology
4.	Fundamentals of Geology
5.	Surveying and Offshore Structure
6.	Chemical Process Calculations
7.	Drilling Fluid and Cementing Technology
8.	Petroleum Exploration
9.	Petroleum Engineering Thermodynamics
10.	Process Heat Transfer
11.	Drilling Technology
12.	Process Dynamics and Control
13.	Process Instrumentation
14.	Well Logging & Formation Evaluation
15.	Petroleum Reservoir Engineering-I
16.	Petroleum Reservoir Engineering-II
17.	Petroleum Economic and Asset Management
18.	Petroleum Production Engineering
19.	Surface Production Operations
20.	Enhanced Oil Recovery Methods
21.	Health, Safety and Environmental Engineering
22.	Petroleum Engineering Equipment Design
23.	Fundamentals of LNG
24.	Natural Gas Processing
25.	Natural Gas Hydrates and Coal Bed Methane

26.	Advance Natural Gas Engineering
27.	Reservoir Modelling and Simulation
28.	Reservoir Stimulation
29.	Transport Phenomena
30.	Mass Transfer Operations
31.	Chemical Reaction Engineering
32.	Computational Fluid Dynamic
33.	Conventional Energy Sources
34.	Energy Management and Auditing
35.	Energy Integration
36.	Non-Conventional Energy Sources
37.	Managerial Economics
38.	Object Oriented Programming
39.	Finance for Engineer
40.	Economic and Social Development of India
41.	Geography and Environmental Concern of India
42.	Web Technologies
43.	Data Mining Techniques
44.	Software Engineering
45.	Database Management System


Chairman BoS