List of Revised Courses

Department :*Hindi*

Programme Name : *B.A. (HON'S)HINDI*

Academic Year : 2019-20

List of Revised Courses

Sr. No.	Course Code	Name of the Course
01.		***NO Revised***
02.		
03.		
04.		
05.		
06.		
07.		
08.		
09.		
10.		

Minutes of Meetings (MoM) of Board of Studies (BoS)

Academic Year : 2019-20

School : *School of Studies of Engineering and Technology*

Department : *Chemical Engineering*

Date and Time : *May 26, 2020 – 11:30 AM*

Venue : *E-Class Room*

The scheduled meeting of member of Board of Studies (BoS) of Department of xxxxxxxxxxxxxx xxxxxxxxxxxxxxx, School of Studies of xxxxxxxxxxxxxxxxxxxxxxxx, Guru Ghasidas Vishwavidyalaya, Bilaspur was held to design and discuss the B. Tech. Final year (VII and VIII semesters) scheme and syllabi.

The following members were present in the meeting:

1. Prof. xxxxxxxxx (External Expert Member BoS, Dept. of xxxxxxxxxxxx., NIT Raipur)
2. Prof. xxxxxxxxxxx (Member BoS, Dept. of xxxxxxxxxx xxxxxxxxxxxx.)
3. Dr. xxxxxxxxxxxx (HOD, Associate Prof., Dept. of xxxxxxxxx.-cum Chairman, BOS)
4. Mrs. xxxxxxxxxxxx (Member BoS, Assistant Professor, Dept. of xxxxxxxxxxxx)
5. Mr. xxxxxxxxxxxx (Invited Member, Assistant Professor, Dept. of xxxxxxxxxxxx)
6. Dr. xxxxxxxx (Invited Member, Assistant Professor, Dept. of xxxxxxxxxxxx)

Following points were discussed during the meeting

1. Xxxxxxxxxxxxxx
2. Xxxxxxxxxxxxxx
3. Xxxxxxxxxxxxxx
4. Xxxxxxxxxxxxxx (If CBCS scheme is implemented in any of the program, kindly mention in the discussion)

The committee discussed and approved the scheme and syllabi. The following courses were revised in the of B. Tech. Final year (VII and VIII Semesters) :

- Transport Phenomena (CH07TPC16)
- Process Equipment Design – III (CH08TPC17)

The following new courses were introduced in the of B. Tech. Final year (VII and VIII Semesters):

- Seminar (CH07PPC12)
- Xxxxxxxxxxxx (XXXXXXXXXXXXXXX)

Signature & Seal of HoD

Scheme and Syllabus

SCHOOL OF STUDIES OF ENGINEERING & TECHNOLOGY
GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G.)
(A Central University Established by the Central University Ordinance 2009, No. 3 of 2009)

SCHEME FOR EXAMINATION (Effective from Session 2021-22)

B.TECH.-(FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING

FINAL YEAR, SEVENTH SEMESTER (AICTE)

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Sessional			
	THEORY		L	T	P	IA	ESE	TOTAL	
01.	CH07TPC14	Process Equipment Design - II	3	1	0	30	70	100	4
02.	CH07TPC15	Chemical Reaction Engineering - II	3	1	0	30	70	100	4
03.	CH07TPC16	Transport Phenomena	3	1	0	30	70	100	4
04.	CH07TPE4X		3	0	0	30	70	100	3
05.	CH07TOE3X		3	0	0	30	70	100	3
	PRACTICAL								
01.	CH07PPC11	Minor Project	0	0	3	30	20	50	1.5
02.	CH07PPC12	Seminar	0	0	3	30	20	50	1.5
		Total	15	3	6			600	21

IA – Internal Assessment
Total Marks – 600

ESE - End Semester Examination
Total Periods / week - 24

Total Credits : 21

B. Tech. Chemical Engineering Final Year

w.e.f : Session 2021-22

BoS held on 23.07.2021

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SCHEME FOR EXAMINATION (Effective from Session 2021-22)

B.TECH. (FOUR YEAR) DEGREE COURSE, CHEMICAL ENGINEERING

FINAL YEAR, EIGHTH SEMESTER (AICTE)

S. No.	Subject Code	Subject Name	Periods			Evaluation Scheme			Credits
						Sessional			
	THEORY		L	T	P	IA	ESE	TOTAL	
01.	CH08TPC17	Process Equipment Design - III	3	1	0	30	70	100	4
02.	CH08TPE5X		3	0	0	30	70	100	3
03.	CH08TOE4X		3	0	0	30	70	100	3
	PRACTICAL								
01.	CH08PPC13	Project	0	0	8	70	30	100	4
		Total	9	1	8			400	14

IA – Internal Assessment
Total Marks – 400

ESE - End Semester Examination
Total Periods / week - 18

Total Credits : 14

B. Tech. Chemical Engineering Final Year

w.e.f : Session 2021-22

BoS held on 23.07.2021

B.Tech. VII Semester

CH07TPC16 **Transport Phenomena** [L:3, T:1, P:0]

Objectives

To impart knowledge about individual and simultaneous momentum, heat and mass transfer, model development along with appropriate boundary conditions.

Contents

Unit-I: Introduction to Transport Phenomena: Similarity between momentum, heat and mass transfer, The continuum hypothesis, Basic laws of fluid motion, Newton's second law of motion, Principle of balance between momentum, Heat and mass transfer, Principles of conservation of momentum, mass and energy.

Unit-II: Momentum Transport Phenomena: Momentum transport in laminar flow: Newton's law of viscosity, Science of rheology, Prediction of viscosity and its dependence on temperature, pressure and composition, Boundary conditions, Shell balance approach for stress distribution and velocity profiles, Introduction to time derivatives and vector analysis, Equation of continuity and equation of motion and their application in fluid flow problems.

Unit-III: Unsteady State Momentum Transport: Flow near a wall suddenly set in motion, Momentum transport phenomena in turbulent flow, Definitions of friction factors, friction factor for flow in tubes, around spheres and through packed bed column.

Unit-IV: Energy Transport Phenomena: Energy transport in laminar flow: Fourier's law of heat conduction, Prediction of thermal conductivities and its dependence on temperature, Pressure and composition, Boundary conditions, Shell balance approach, Types of heat sources, Principle of extended surfaces, Types of cooling fans, Free and forced convection. Unsteady state heat transport, Unsteady state heat conduction in solids, Heating of semi-infinite slab, Heating of finite slab, Application.

Unit-V: Mass Transport Phenomena: Definitions of concentration, Velocities and mass fluxes, Fick's law of diffusion, Prediction of diffusivity and its dependence on temperature, pressure and composition, Boundary conditions, Shell balance approach for mass transfer problems. Problems of diffusion with homogeneous and heterogeneous chemical reaction, Diffusion and chemical reaction in porous catalyst the effectiveness factor, Equation of continuity for multicomponent mixtures.

Suggested Text Books

1. Transport Phenomena by R.B. Bird, W.E. Stewart & E. W. Lighfoot, John Wiley & Sons
2. Transport Phenomena by R. S. Brodkey and H. C. Hershey, McGraw-Hill
3. Fundamentals of Momentum Heat and Mass Transfer by J.R. Welty, C.W. Wicks, R.E. Wilson and G. Rorrer, John Wiley & Sons.

Course Outcomes

Upon completion of this course, the students will be able to: (a) analyze heat, mass, and momentum transport in a process; (b) formulate problems along with appropriate boundary conditions; (C) develop steady and transient solution for problems involving heat, mass, and momentum transport.

w.e.f : Session 2021-22 **BoS held on 23.07.2021**

23/07/2021

CH08TPC17 **B.Tech. VIII Semester**
Process Equipment Design- III **[L:3, T:1, P:0]**

Objectives

Chemical Engineers should have knowledge about Design of mass transfer Equipments such as absorption, Distillation Columns, dryer etc. This will also be useful for using Design software which is widely used in chemical industries.

Contents

Mass Transfer Equipment design of: Absorption tower, Distillation tower, Tunnel and rotary dryers.

Suggested Text Books

1. Hand Book of Chemical Engineering J. H. Perry
2. Coulson & Richardson Vol.- VI
3. Mass Transfer by R. E. Treybal
4. ISI Codes

Candidates have to bring their own copies of ISI Code book and they will be not be supplied by the university or the examination centres.

Course Outcomes

Upon completion of this course, the students will be able to: (a) design mass transfer equipment's for chemical process.; (b) prepare drawing for chemical process equipment's.

w.e.f : Session 2021-22 **BoS held on 23.07.2021**

23/07/2021