

**Department of Chemical Engineering**

**Name of External Experts who were present in Virtual BoS June 2021**

1. Dr. Ashok Sharma, Professor, Department of Chemical Engg, UEC, Ujjain  
(Expert nominated by the Vice Chancellor, RGPV)
2. Dr. Manish Vashishtha, Associate Professor, Department of Chemical Engg, MNIT Jaipur  
(Subjects Expert from outside RGPV nominated by Academic Council)
3. Mr. Ashish Sharma, Assistant Manager, Mondelez International, Malanpur  
(Representative from industry nominated by Academic Council)

**Compiled list of OCs, DEs, Minor & Honours Courses Recommended by BoS for the 2017-2021 Batch**

**List of OCs**

S.No.	Code	Semester	Name of the course	Remarks
1	900109	VI	Fuels & Combustion	-
2	900110	VI	Nano Technology	-
3	900211	VII	Petroleum Processing Technology	-
4	900223	VII	Industrial Safety & Hazard Analysis	-
5	900622	VIII	Computational Fluid Dynamics	SWAYAM/NPTEL
6	900623	VIII	Environmental Quality Monitoring & Analysis	SWAYAM/NPTEL
7	900624	VIII	Electrochemical Technology in Pollution Control	SWAYAM/NPTEL
8	900607	VIII	Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems	SWAYAM/NPTEL

**List of DEs**

S.No.	Code	Semester	Name of the course	Remarks
1	170611	VI	Process Equipment Design	DE -I (Offline)
2	170612	VI	Fluidization Engineering	DE -I (Offline)
3	170613	VI	Multi-Component	DE -I (Offline)

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			Distillation	
4	170614	VI	Polymer Technology	DE –I (Offline)
5	170651	VI	Chemical Reaction Engineering-II	DE-II (Online)
6	170652	VI	Multiphase Flow	DE-II (Online)
7	170653	VI	Membrane Technology	DE-II (Online)
8	170711	VII	Transport Phenomena	DE-III(Offline)
9	170712	VII	Equilibrium Staged operation	DE –III(Offline)
10	170713	VII	Industrial Pollution prevention and Control	DE –III(Offline)
11	170714	VII	Petrochemical Technology	DE –III(Offline)
12	170751	VII	Plant Design and Economics	DE-IV (Online)
13	170752	VII	Chemical Process Safety	DE –IV (Online)
14	170753	VII	Numerical Methods for Engineers	DE-IV (Online)
15	170851	VIII	Optimization in Chemical Engg.	DE-V (Online)
16	170852	VIII	Waste to Energy Conversion	DE-V (Online)
17	170853	VIII	Biomass Conversion and Biorefinery	DE-V (Online)

### List of Minors & Honours

S.No.	Category	Semester	Name of the course	Remarks
1	Minors	V	Heat Transfer	-
2		V	Fundamentals of Particle & Fluid Solid Processing	-
3		V	Chemical Reaction Engineering-I	-
4		VI	Process Control - Design, Analysis and Assessment	-
5		VI	Membrane Technology	-
6		VI	Basic Principles and Calculations in Chemical Engineering	-
7		VII	Fluidization Engineering	-
8		VII	Polymers: concepts, properties, uses and sustainability	-

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9		VII	Fluid Machines	-
10		VIII	Transport Processes I: Heat and Mass Transfer	-
11		VIII	Chemical Engineering Thermodynamics	-
12		VIII	Chemical Process Instrumentation	-
1	Honours	V	Flow through porous media	-
2		V	Technologies For Clean And Renewable Energy Production	-
3		V	Chemical Process Intensification	-
4		V	Fundamentals of Particle & Fluid Solid Processing	-
5		VI	Environmental Quality Monitoring & Analysis	-
6		VI	Electrochemical Technology in Pollution Control	-
7		VI	Computational Fluid Dynamics	-
8		VI	Soft Nano Technology	-
9		VII	Phase equilibrium thermodynamics	-
10		VII	Colloids and Surfaces	-
11		VII	Heat Exchangers: Fundamentals and Design Analysis	-
12		VIII	Computer Aided Applied Single Objective Optimization	-
13		VIII	Model Predictive Control: Theory and Applications (honors)	-
14		VIII	Advanced Thermodynamics and Molecular Simulations	-
15		VIII	Introduction to Uncertainty Analysis and Experimentation	-

## Compiled list of OCs, DEs, Minor & Honours for Current Session

### List of Departmental Elective (Offline & Online Mode)

S.No.	Code	Semester	Name of the course	Remarks
1	170711	VII	Transport Phenomena	DE-III(Offline)
2	170712	VII	Equilibrium Stage operation	DE-III(Offline)
3	170713	VII	Industrial Pollution prevention and Control	DE-III(Offline)
4	170714	VII	Petrochemical Technology	DE-III(Offline)
5	170753	VII	Numerical Methods for Engineers	DE-IV (Online)
6	170754	VII	Energy conservation and waste heat recovery	DE-IV (Online)
7	170755	VII	Principles and Practices of Process Equipment and Plant Design	DE-IV (Online)

Open Category (OC)
<b>900211: Petroleum Processing Technology (OC-2)</b>
<b>900223: Industrial Safety &amp; Hazard Analysis (OC-3)</b>

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**List of Honours & Minors Course**

S.No.	Purpose	Name of Course	Duration of the course in weeks	Course Registration			Name of the Faculty
				Start Date	End Date	Exam Date	
1	For Honours(VII I Semester)	Computer Aided Applied Single Objective Optimization	12 Week	January 18, 2021	April 9, 2021	April 24, 2021	Prof. Pratap Singh
		Model Predictive Control: Theory and Applications	12 Week	January 18, 2021	April 9, 2021	April 24, 2021	Prof. Anish P.Jacob
		Advanced Thermodynamics and Molecular Simulations	12 Week	January 18, 2021	April 9, 2021	April 25, 2021	Prof. Swati Gupta
		Introduction to Uncertainty Analysis and Experimentation	8 Week	January 18, 2021	March 12, 2021	March 21, 2021	Prof. Sulochana Nagar
2.	For Minor Specialization(Others Department) (VIII Semester)	Transport Processes I: Heat and Mass Transfer	12 Week	January 18, 2021	April 9, 2021	April 25, 2021	Prof. Anish P.Jacob
		Chemical Engineering Thermodynamics	12 Week	January 18, 2021	April 9, 2021	April 24, 2021	Prof. Pratap Singh
		Chemical Process Instrumentation	12 Week	January 18, 2021	April 9, 2021	April 25, 2021	Prof. Sulochana Nagar
3.	For Honours(VI Semester)	Environmental Quality Monitoring & Analysis	12 Week	January 18, 2021	April 9, 2021	April 24, 2021	Dr. R.K.Dubey
		Electrochemical Technology in Pollution Control	8 Week	January 18, 2021	March 12, 2021	March 21, 2021	Prof. Swati Gupta
		Soft Nano Technology	8 Week	January 18, 2021	March 12, 2021	March 21, 2021	Prof. Anish P.Jacob
4.	For Minor Specialization (Others Department) (VI Semester)	Process Control - Design, Analysis and Assessment	12 Week	January 18, 2021	April 9, 2021	April 25, 2021	Prof. Swati Gupta
		Membrane Technology	12 Week	January 18, 2021	April 9, 2021	April 24, 2021	Prof. Anish P. Jacob
		Basic Principles and Calculations in Chemical Engineering	12 Week	January 18, 2021	April 9, 2021	April 25, 2021	Dr. A.N.Sarve