

Department of Chemical Engineering

Revised SWAYAM Courses

As per AICTE curriculum design guideline, Chemical Engineering Department is allowing to take following SWAYAM/NPTEL/MOOC courses. Selected courses have equivalence (60-90% syllabus) with our regular courses.

Second Year Chemical Engineering:

S.N.	Department Course Structure					SWAYAM/NPTEL Course			Current semester status / Remarks
	Course Code	Title of Course	Semester	Course credit (Theory)	No. of weeks	Equivalent Name of course	No. of weeks	Equivalent content (%)	
1	BSC271	Mathematics-III: Transform Calculus and Differential Equations	1 st	3	12	Transform calculus and its applications in differential equations	12	80	Course is Available but not for registration
2	PCC-CH201	Chemical Process Calculations	1 st	4	12	Basic Principles and Calculations in Chemical Engineering by Dr. S.K. Majumdar, IITG	12	70	Course is Available but not for registration
3	PCC-CH202	Fluid Mechanics	1 st	3	12	Fluid Mechanics by Dr. V. Shankar, IITK	12	80	Fluid & Particle Mechanics By Dr. Basavaraju and Dr. Sumesh, IIT Madras Course duration, 20 th July to 9 th Oct., 2020 Equivalent content % is 50%

4	PCC-CH203	Chemical Engineering Thermodynamics - I	1 st	3	12	Chemical Engineering Thermodynamics by Dr. Sandip Roy, IITB	12	70	Chemical Engineering Thermodynamics By Dr. J. K. Singh, IIT Kanpur Course duration, 20 th July to 9 th Oct., 2020 Equivalent content % is 60%
5	BSC274	Mathematics-IV: Statistical and Numerical Methods	2 nd	3	12	Numerical Methods by Dr. A.K. Nayak and Dr. Sanjeev Kumar, IITR	8	70	Course duration, 17 th August to 9 th Oct., 2020
6	PCC-CH204	Heat Transfer	2 nd	3	12	Heat Transfer By Dr. Anil Varma, IITG	12	90	Course duration, 20 th July to 9 th Oct., 2020
7	PCC-CH205	Chemical Engineering Thermodynamics - II	2 nd	3	12	Chemical Engineering Thermodynamics by Dr. S. Gumma, IITG	12	80	Course duration, 20 th July to 9 th Oct., 2020
8	PCC-CH206	Mass Transfer- I	2 nd	3	12	Mass Transfer Operations- I By Dr. B. Mandal, IITG	12	70	Course is Available but not for registration
9	PCC-CH207	Mechanical Operations	2 nd	3	12	Mechanical Unit Operations by Dr. Nanda Kishore	12	90	Course duration, 20 th July to 14 th August, 2020

Third Year Chemical Engineering:

Sr. No.	Department Course Structure					SWAYAM/NPTEL Course			Current semester status/Remarks
	Course Code	Title of Course	Semester	Course credit (Theory)	No. of weeks	Equivalent Name of course	No. of weeks	Equivalent content (%)	
1	PCC-CH301	Mass Transfer-II	1 st	3	12	Mass Transfer Operations-II By Dr. Chandan Das, IITG	12	70	Course is Available but not for registration
2	PCC-CH302	Chemical Reaction Engineering-I	1 st	3	12	Chemical Reaction Engineering-I By Dr. B. Mandal, IITG	12	90	Chemical Reaction Engineering-I By Dr. B. Mandal, IIT, Guwahati Course duration, 20 th July to 9 th Oct., 2020 Equivalent content (%) is 80%
3	PCC-CH303	Process Equipment Design & Drawing	1 st	3	12	Chemical Engineering Design-II by Dr. V. V. Goud, IITG	12	70	Course is Available but not for registration
4	PCC-CH307	Process Dynamics & Control	2 nd	3	12	Process Control & Instrumentation by Dr. P. Saha, IITG	12	80	Course duration, 17 th August to 9 th Oct., 2020
5	PCC-CH308	Chemical Reaction Engineering-II	2 nd	3	12	Chemical Reaction Engineering-II by Dr. G. A. Vishwanathan, IITB	12	80	Course is Available but not for registration
6	PCC-CH309	Plant Design & Economics Management	2 nd	3	12	Plant Design & Economics By Dr. D. Sarkar, IITKgp	12	80	Course duration, 20 th July to 9 th Oct., 2020
7	PCC-CH310	Chemical Process Industries	2 nd	3	12	Chemical Technology-I	12	70	Course is Available but not for registration

Final Year B. Tech Chemical Engineering:

Sr. No.	Department Course Structure					SWAYAM/NPTEL Course		Equivalent content (%)	Remarks
	Course Code	Title of Course	Semester	Course credit (Theory)	No. of weeks	Equivalent Name of course	No. of weeks		
1	CH421	Process Modelling & Simulation	1 st	4	12	Process Modelling & Simulation	12	60	Course is Available but not for registration
2	CH422	Transport Phenomena	1 st	4	12	Transport Phenomena By Dr. S. Dasgupta, IIT Kgp	12	80	Course is Available but not for registration
3	CH424	Optimization Techniques	1 st	4	12	Optimization in Chemical Engineering by Dr. D. Sarkar, IIT Kgp	12	80	Course is Available but not for registration

Students can opt any SWAYAM course instead of regular course from above list as per SWAYAM schedule in respective semester.

Head