



DEPARTMENT OF CHEMICAL ENGINEERING
SRI VENKATESWARA UNIVERSITY COLLEGE OF ENGINEERING: TIRUPATI-517502
R-20 – Scheme of Instruction effective from the academic year 2020-2021

III Semester (Second Year)

Course Code	Category	Course Title	Scheme of Instruction, Hrs/Week				Credits	Scheme of Evaluation, Marks		Total Marks
			L	T	P	Total		Internal	End Sem	
MA301 B	BSC	Mathematics - III	3	0	0	3	3	40	60	100
CH302E	ESC	Engineering and Solid Mechanics	3	0	0	3	3	40	60	100
HS303C	HSS	Managerial Economics and Accountancy	3	0	0	3	3	40	60	100
CH304C	PCC	Chemical Process Calculations	3	0	0	3	3	40	60	100
CH305C	PCC	Momentum Transfer	3	0	0	3	3	40	60	100
CH306C	PCC	Chemical Engineering Thermodynamics - I	3	0	0	3	3	40	60	100
CH307L	PCC Lab	Momentum Transfer Lab	0	0	3	3	1.5	40	60	100
CH308L	PCC Lab	Analysis Lab	0	0	3	3	1.5	40	60	100
CH309S	SOC	Computer Skills	1	0	2	3	2	100	--	100
MC310A	MC	Constitution of India	2	0	0	2	0	100	--	100
		TOTAL	21	0	8	29	23	520	480	1000

Note: A student is free to enroll and complete online courses from II Semester to VII Semester of his /her B.Tech programme.

Category	CREDITS
Basic Science Course - BSC	03
Engineering Science Course – ESC	03
Humanities and Social Science - HSS	03
Professional Core Course -PCC	12
Skill Oriented Course - SOC	02
TOTAL CREDITS	23



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IV Semester (Second Year)

Course Code	Category	Course Title	Scheme of Instruction, Hrs/Week				Credits	Scheme of Evaluation, Marks		Total Marks
			L	T	P	Total		Internal	End Sem	
CH401B	BSC	Mathematics - IV	3	0	0	3	3	40	60	100
CH402C	PCC	Particle and Fluid Processing	3	0	0	3	3	40	60	100
CH403C	PCC	Chemical Engineering Thermodynamics - II	3	0	0	3	3	40	60	100
CH404C	PCC	Heat Transfer	3	0	0	3	3	40	60	100
CH405C	PCC	Mass Transfer Operations - I	3	0	0	3	3	40	60	100
CH406C	PCC	Chemical Technology	3	0	0	3	3	40	60	100
CH407L	PCC Lab	Particle and Fluid Processing Lab	0	0	3	3	1.5	40	60	100
CH408L	PCC Lab	Heat Transfer Lab	0	0	3	3	1.5	40	60	100
CH409S	SOC	Python Programming	1	0	2	3	2	100	-	100
CH410		NCC/NSS/NSO	Satisfactory or Unsatisfactory							
		TOTAL	19	0	8	27	23	420	480	900

Category	CREDITS
Basic Science Course - BSC	03
Professional Core Course - PCC	18
Skill Oriented Course - SOC	02
TOTAL CREDITS	23

Note: Community Service Project (CSP) after second year (To be evaluated during V semester) with duration greater than 45 hours.

All undergraduate students shall register for NCC/NSS/NSO activities in First semester of B. Tech. A student will be required to participate in an activity for two hours in a week during second and third semesters i.e., 60 hours. Grade shall be awarded as Satisfactory or Unsatisfactory in the mark sheet on the basis of participation, attendance, performance and behavior. If a student gets an unsatisfactory Grade, he/she shall repeat the above activity in the subsequent years, in order to complete the degree requirements.



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B. Tech. Minor Requirements in Chemical Engineering

Total Credit requirement: 20

Student shall register for any 4 subjects ($4 \times 4 = 16$ credits) from the following listed subjects, by selecting one subject for each IV, V, VI and VII semester. Further, they shall require 4 credits through two MOOCs (each of 2 credits), which shall be discipline-specific.

All courses – 40 marks (Internal) + 60 marks (End Semester)

The courses that are offered for B. Tech.(Minor)in Chemical Engineering are

Course Code	Subject	L-T-P	Credits
CHMN01	Basic Process Calculations	3-1-0	4
CHMN02	Fluid and Particle Mechanics	3-1-0	4
CHMN03	Heat and Mass Transfer	3-1-0	4
CHMN04	Elementary Reaction engineering	3-1-0	4
CHMN05	Process Industrial Technology	3-1-0	4
CHMNO6	Fundamentals of Nanotechnology	3-1-0	4
CHMN07	MOOCS	0	4



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B.Tech. Honors requirements in Chemical Engineering

Total Credit requirement: 20

Student shall register for any 4 subjects ($4 \times 4 = 16$ credits) from the following listed subjects, by selecting one subject for each IV, V, VI and VII semester. Further, they shall require 4 credits through two MOOCs (each of 2 credits), which shall be discipline-specific.

All courses – 40 marks (Internal) + 60 marks (End Semester)

The courses that are offered for B. Tech.(Honors) in Chemical Engineering are

Course Code	Course Title	L-T-P	Credits
CHHN01	Sustainable process Engineering	3-1-0	4
CHHN02	Separation Processes	3-1-0	4
CHHN03	Chemical Reactor Theory	3-1-0	4
CHHN04	Microelectronic Material Processing	3-1-0	4
CHHN05	Advanced Heat Transfer	3-1-0	4
CHHN06	Process Plant Simulation	3-1-0	4
CHHN07	MOOCS	0	4