



**EXCEL ENGINEERING COLLEGE**  
(Autonomous)

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Accredited by NBA (AERO, CSE, MECH, ECE), NAAC with "A+" and

Recognised by UGC (2f & 12B)

KOMARAPALAYAM - 637303

**DEPARTMENT OF FOOD TECHNOLOGY**

**2.6.2 Attainment of programme outcomes and courseoutcomes as evaluated by the institution**

- CO attainment and PO attainment
- CO-PO Target (Direct and Indirect attainment)

  
HOD/FT



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KOMARAPALAYAM-637303

DEPARTMENT OF FOOD TECHNOLOGY

## 2.6.2 Attainment of programme outcomes and course outcomes as evaluated by the institution

Batch 2019-23


### CO-ATTAINMENT

Name of the course (REGULATION 2019)	Course code	CO1	CO2	CO3	CO4	CO5	CO ATTAINED LEVEL
Communicative English	C101	3	3	3	3	3	3
Engineering Mathematics – I	C102	1.72	1.72	1.72	1.72	1.72	1.72
Engineering Physics	C103	1.72	1.72	1.72	1.72	1.72	1.72
Engineering Chemistry	C104	1.72	1.72	1.72	1.72	1.72	1.72
Problem Solving and Python Programming	C105	1.72	1.72	1.72	1.72	1.72	1.72
Engineering Graphics	C106	1.72	1.72	1.72	1.72	1.72	1.72
Problem Solving and Python Programming Laboratory	C107	3	3	3	3	3	3
Physics and Chemistry Laboratory	C108	3	3	3	3	3	3
Technical English	C109	3	3	3	3	3	3
Engineering Mathematics – II	C110	3	3	3	3	3	3
Physics of Materials	C111	3	3	3	3	3	3

Basic Civil and Mechanical Engineering	C112	3	3	3	3	3	3
Microbiology	C113	3	3	3	3	3	3
Biochemistry	C114	3	3	3	3	3	3
Engineering Practices Laboratory	C115	3	3	3	3	3	3
Biochemistry Laboratory	C116	3	3	3	3	3	3
Transforms and Partial Differential Equations	C201	3	3	3	3	3	3
Introduction to Food Processing	C202	3	3	3	3	3	3
Food Process Calculations	C203	3	3	3	3	3	3
Food Microbiology(FD8303)	C204	3	3	3	3	3	3
Principles of Fluid Mechanics	C205	3	3	3	3	3	3
Food Chemistry and Nutrition	C206	3	3	3	3	3	3
Food Microbiology Laboratory	C207	3	3	3	3	3	3
Food Chemistry and Nutrition Laboratory	C208	3	3	3	3	3	3
Interpersonal Skills/Listening and Speaking	C209	3	3	3	3	3	3
Probability and Statistics	C210	3	3	3	3	3	3
Food Analysis	C211	1.08	1.08	1.08	1.08	1.08	1.08
Fundamentals of Heat and Mass Transfer	C212	3	3	3	3	3	3
Environmental Science and Engineering	C213	3	3	3	3	3	3

Thermodynamics	C214	3	3	3	3	3	3
Unit Operations for Food Industry	C215	3	3	3	3	3	3
Food Analysis Laboratory	C216	3	3	3	3	3	3
Unit Operations Laboratory	C217	3	3	3	3	3	3
Advanced Reading and writing	C218	3	3	3	3	3	3
Food Additives	C301	3	3	3	3	3	3
Biochemical Engineering for food technology	C302	3	3	3	3	3	3
Refrigeration and Cold Chain management	C303	3	3	3	3	3	3
Food Processing and preservation	C304	3	3	3	3	3	3
Traditional Foods	C305	3	3	3	3	3	3
Renewable Energy Sources	C306	3	3	3	3	3	3
Food Processing and preservation laboratory	C307	3	3	3	3	3	3
Biochemical Engineering laboratory	C308	3	3	3	3	3	3
Professional Communication	C309	3	3	3	3	3	3
Food Process Engineering and Economics	C310	3	3	3	3	3	3
Baking and Confectionary technology	C311	3	3	3	3	3	3
Fruits and Vegetable processing technology	C312	3	3	3	3	3	3
Food Toxicology and Allergy	C313	3	3	3	3	3	3

Food Process Equipment Design	C314	3	3	3	3	3	3
Meat, Fish and Pollutry Processing Technology	C315	3	3	3	3	3	3
Fruits and Vegetable processing technology Lab	C316	3	3	3	3	3	3
Baking and Confectionary Technology Laboratory	C317	3	3	3	3	3	3
Dairy Process Technology	C401	2.84	3	3	3	3	2.97
Food Safety, Quality and regulation	C402	3	3	3	3	3	3
Food Packaging Technology	C403	3	3	3	3	3	3
Beverage Technology	C404	3	3	3	3	3	3
Management of Food waste	C405	3	3	3	3	3	3
Industrial Safety	C406	3	3	3	3	3	3
Testing of Packaging Materials Laboratory	C407	3	3	3	3	3	3
Dairy Process Technology laboratory	C408	3	3	3	3	3	3
Project Work	C409	3	3	3	3	3	3

  
 Academic Coordinator

  
 HOD





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KOMARAPALAYAM-637303

DEPARTMENT OF FOOD TECHNOLOGY

Batch 2019-23

CO-PO TARGET

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	-	-	-	-	-	-	1	-	-	3	2	2	2	-	-
C102	3	2.6	1.8	-	-	-	-	-	-	-	-	-	1.4	-	-
C103	3	1.2	1.2	-	-	-	-	-	-	-	-	-	-	-	-
C104	3	2	-	-	-	-	-	-	-	-	1	-	1	-	-
C105	-	-	-	-	-	2	1	2	-	-	-	3	2	-	-
C106	3	2.2	-	-	-	-	-	-	-	-	-	1	2	-	-
C107	3	2	1.6	-	-	-	-	-	-	-	-	-	3	1	-
C108	3	2	1.6	-	-	-	-	-	-	-	-	-	3	1	-
C109	-	-	-	-	-	-	1	-	-	3	2	2	2	-	-
C110	2.8	2.2	1.4	-	-	-	-	-	-	-	-	-	1.4	-	-
C111	3	1.2	1.2	-	-	-	-	-	-	-	-	-	-	-	-
C112	3	1.2	1.2	-	-	-	-	-	-	-	-	-	-	-	-
C113	3	1.8	-	-	-	-	-	-	-	-	-	2.8	1.4	-	-

C114	3	2.2	-	-	-	-	-	-	-	-	-	1	2	-	-
C115	3	-	3	-	-	1.3	1	-	1.5	-	-	-	3	3	-
C116	3	-	3	-	-	1.3	1	-	1.5	-	-	-	3	3	-
C201	3	2.4	1.8	-	-	-	-	-	-	-	-	1	1.8	-	-
C202	2.4	1.75	-	-	-	1.5	1.3	-	-	-	-	-	2	1.2	1.4
C203	2.8	2.2	1.8	-	-	-	-	-	-	-	-	-	1.2	1.4	1.2
C204	3	1.8	-	-	-	-	-	-	-	-	-	2.8	1.4	-	-
C205	2.8	2	1.25	-	-	-	-	-	-	-	-	-	1	1.4	1.2
C206	3	1.4	-	-	-	-	-	-	-	-	-	-	2	1.8	1.4
C207	3	-	3	-	-	1.3	1	-	1.5	-	-	-	3	3	-
C208	2.8	2.4	1.6	-	-	2	-	-	-	-	-	-	1.2	1.4	1.6
C209	-	-	-	-	-	-	-	-	-	3	2	1	2	-	-
C210	3	2.4	1.8	-	-	-	-	-	-	-	-	1	1.8	-	-
C211	3	1.5	2	-	-	-	-	-	-	-	-	-	2	1.6	1.4
C212	3	2	1.3	1	-	1.3	1.75	-	-	-	-	-	1.4	1	1.5
C213	-	-	-	-	-	-	3	-	-	-	-	3	1	1	1
C214	2.6	1.6	1.6	-	-	-	-	-	-	-	-	-	1.2	1.6	1.8
C215	3	1.8	1.3	1	-	-	1	-	-	-	-	-	1.2	1.4	1
C216	2.8	2.6	1.6	-	-	-	-	-	-	-	-	-	2	1.6	1.2

C217	3	1.6	1	-	-	2	2	1	1.4	-	1	1	1.2	1.8	1.6	
C218	-	-	-	-	-	-	-	-	-	3	1	2	2	-	-	
C301	2.8	1.4	3	-	-	-	1.5	1	-	-	-	-	2	1.2	1.2	
C302	3	1.6	1	-	-	-	-	-	-	-	-	-	1.4	-	-	
C303	2.6	1.8	1.5	-	-	1	1.7	1	-	-	-	-	1	2	1.2	
C304	3	1.8	1.3	-	1	-	2	1	-	-	-	-	1.2	2.4	1.2	
C305	3	2.2	2.6	-	-	-	-	-	-	-	-	-	1.8	2	1.6	
C306	3	2	1	-	-	-	-	-	-	-	-	1.6	1.6	1.75	1.8	1.4
C307	2.8	2.4	1.4	-	1.6	1.4	1.75	1	1	1.3	1.25	2	1	1.6	1.2	
C308	3	2.4	1.8	1	-	-	-	-	-	-	-	-	1.6	1.5	2.5	
C309	-	-	-	-	-	-	-	-	-	3	1	2	2	-	-	
C310	3	2	1	-	-	-	-	-	-	-	1.6	1.6	1.75	1.8	1.4	
C311	2.8	1.4	1	-	-	-	-	-	-	-	-	-	1.4	1.3	1	
C312	3	1.6	1.2	-	-	-	1	1.5	-	-	-	-	1.6	1	1.25	
C313	3	2	1	-	-	-	-	-	-	-	1.6	1.6	1.75	1.8	1.4	
C314	3	2.2	2	-	-	-	-	-	-	-	-	-	1.4	2	1.5	
C315	2.8	1.8	1	-	-	-	-	-	-	-	-	-	3	-	-	
C316	3	2.4	1.8	1	-	-	-	-	-	-	-	-	1.6	1.5	2.5	
C317	3	2	1.4	1	-	-	-	-	-	-	-	-	1.6	1.5	2.5	



C401	3	1.4	1.3	-	-	1.3	1.75	-	-	-	-	-	1.4	1	1.6
C402	2.4	1.4	2	-	-	-	-	-	-	-	-	-	1.4	1.75	-
C403	2.8	1.8	1	-	-	-	-	-	-	-	-	-	3	-	-
C404	1.6	1.8	2	1.6	1.25	1.3	1.75	-	-	-	-	-	1.4	-	-
C405	2.6	1.8	1.5	-	-	1	1.7	1	-	-	-	-	1	2	1.2
C406	3	1.8	1.3	-	1	-	2	1	-	-	-	-	1.2	2.4	1.2
C407	2.8	2.5	2.3	-	-	-	1	-	1	-	-	-	3	1	1
C408	3	2.2	2.6	-	-	-	-	-	-	-	-	-	1.8	2	1.6
C409	2.6	2	1.6	3	3	3	3	3	3	3	2	2	3	2	2.4
<b>Target value</b>	<b>2.88</b>	<b>1.92</b>	<b>1.64</b>	<b>1.37</b>	<b>1.57</b>	<b>1.55</b>	<b>1.55</b>	<b>1.35</b>	<b>1.56</b>	<b>2.76</b>	<b>1.50</b>	<b>1.81</b>	<b>1.78</b>	<b>1.68</b>	<b>1.47</b>



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Batch 2019-23

## CO-PO ATTAINMENT

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C101	-	-	-	-	-	-	1.00	-	-	3.00	2.00	2.00	2.00	-	-
C102	1.72	1.49	1.03	-	-	-	-	-	-	-	-	-	0.80	-	-
C103	1.72	0.69	0.69	-	-	-	-	-	-	-	-	-	-	-	-
C104	1.72	1.15	-	-	-	-	-	-	-	-	0.57	-	-	-	-
C105	-	-	-	-	-	1.15	0.57	1.15	-	-	-	1.72	1.15	-	-
C106	1.72	1.26	-	-	-	-	-	-	-	-	-	0.57	1.15	-	-
C107	3.00	2.00	1.60	-	-	-	-	-	-	-	-	-	3.00	1.00	-
C108	3.00	2.00	1.60	-	-	-	-	-	-	-	-	-	3.00	1.00	-
C109	-	-	-	-	-	-	1.00	-	-	3.00	2.00	2.00	2.00	-	-
C110	2.80	2.20	1.40	-	-	-	-	-	-	-	-	-	1.40	-	-
C111	3.00	1.20	1.20	-	-	-	-	-	-	-	-	-	-	-	-
C112	3.00	1.20	1.20	-	-	-	-	-	-	-	-	-	-	-	-
C113	3.00	1.80	-	-	-	-	-	-	-	-	-	2.80	1.40	-	-
C114	3.00	2.20	-	-	-	-	-	-	-	-	-	1.00	2.00	-	-
C115	3.00	-	3.00	-	-	1.40	1.00	-	1.60	-	-	-	3.00	3.00	-
C116	3.00	-	3.00	-	-	1.40	1.00	-	1.60	-	-	-	3.00	3.00	-

C201	2.00	1.40	0.40	-	-	-	-	-	-	-	-	-	0.80	1.40	-
C202	2.40	1.40	-	-	-	0.60	0.80	-	-	-	-	-	2.00	1.20	1.40
C203	2.50	2.00	1.50	-	-	-	-	-	-	-	-	-	0.80	1.00	0.85
C204	2.50	1.50	-	-	-	-	-	-	-	-	-	2.30	1.00	-	-
C205	2.40	1.50	1.00	-	-	-	-	-	-	-	-	-	0.80	1.00	1.00
C206	2.50	1.00	-	-	-	-	-	-	-	-	-	-	1.50	1.50	1.00
C207	1.80	-	3.00	-	-	0.80	0.20	-	0.60	-	-	-	0.60	1.20	-
C208	2.00	2.00	1.00	-	-	0.40	-	-	-	-	-	-	0.80	1.00	1.20
C209	-	-	-	-	-	-	-	-	-	3.00	2.00	1.00	2.00	-	-
C210	2.00	1.40	0.40	-	-	-	-	-	-	-	-	-	1.00	1.40	-
C211	2.80	1.30	1.80	-	-	-	-	-	-	-	-	-	1.75	1.20	1.20
C212	2.60	1.60	1.00	0.80	-	1.00	1.50	-	-	-	-	-	1.00	0.60	1.00
C213	-	-	-	-	-	-	2.60	-	-	-	-	2.80	1.00	1.00	1.00
C214	2.00	1.40	0.40	-	-	-	-	-	-	-	-	-	1.00	1.40	1.50
C215	2.00	1.40	0.40	0.50	-	-	0.60	-	-	-	-	-	1.00	1.00	0.50
C216	2.80	2.60	1.60	-	-	-	-	-	-	-	-	-	2.00	1.60	1.20
C217	3.00	1.60	1.00	-	-	2.00	2.00	1.00	1.40	-	1.00	1.00	1.20	1.80	1.60
C218	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00	2.00	-	-
C301	2.80	1.40	0.40	-	-	-	0.60	0.40	-	-	-	-	2.00	1.20	0.80
C302	3.00	1.60	0.40	-	-	-	-	-	-	-	-	-	1.40	-	-
C303	2.60	1.80	0.60	-	-	1.00	1.40	0.60	-	-	-	-	1.00	2.00	1.20
C304	3.00	1.80	0.80	-	0.40	-	2.00	0.40	-	-	-	-	1.20	2.40	1.20
C305	2.00	1.40	0.40	-	-	-	-	-	-	-	-	-	1.40	1.40	1.00

C306	2.40	1.40	0.40	-	-	-	-	-	-	-	1.00	1.00	1.20	1.20	1.00
C307	2.80	2.10	1.40		1.60	1.40	1.40	0.60	0.80	0.80	1.00	2.00	1.00	1.60	1.20
C308	3.00	2.40	1.80	0.60	-	-	-	-	-	-	-	-	1.60	0.60	1.00
C309	-	-	-	-	-	-	-	-	-	3.00	1.00	2.00	2.00	-	-
C310	2.00	1.40	0.40	-	-	-	-	-	-	-	1.40	1.40	1.50	1.40	1.00
C311	2.00	1.40	0.40	-	-	-	-	-	-	-	-	-	1.40	1.20	0.80
C312	2.00	1.40	1.00	-	-	-	1.00	1.00	-	-	-	-	1.40	0.80	1.00
C313	2.00	1.40	0.40	-	-	-	-	-	-	-	1.40	1.20	1.40	1.40	1.00
C314	3.00	2.20	1.20	-	-	-	-	-	-	-	-	-	1.40	0.40	0.60
C315	1.60	1.80	1.00	-	-	-	-	-	-	-	-	-	2.50	-	-
C316	3.00	2.40	1.80	1.00	-	-	-	-	-	-	-	-	1.60	1.50	2.50
C317	3.00	2.00	1.40	1.00	-	-	-	-	-	-	-	-	1.60	1.50	2.50
C401	3.00	1.40	0.80	-	-	0.80	1.40	-	-	-	-	-	1.40	0.40	1.00
C402	1.60	1.00	1.50	-	-	-	-	-	-	-	-	-	1.40	1.40	-
C403	1.60	1.80	1.00	-	-	-	-	-	-	-	-	-	2.50	-	-
C404	1.60	1.80	2.00	1.00	1.00	0.80	1.40	-	-	-	-	-	1.40	-	-
C405	2.40	1.40	1.20	-	-	0.50	1.00	0.80	-	-	-	-	0.80	2.00	1.00
C406	1.80	1.20	1.00	-	0.80	-	2.00	1.00	-	-	-	-	1.00	2.20	1.00
C407	2.80	2.50	2.30	-	-	-	1.00	-	1.00	-	-	-	3.00	1.00	1.00
C408	3.00	2.20	1.60	-	-	-	-	-	-	-	-	-	1.80	0.40	1.00
C409	2.60	2.00	1.60	3.00	2.50	3.00	2.50	3.00	3.00	3.00	-	1.50	3.00	2.00	2.40
Direct value	2.44	1.65	1.20	1.13	1.26	1.16	1.27	0.99	1.43	2.69	1.31	1.66	1.57	1.36	1.18



## EXCELENGINEERING COLLEGE (Autonomous)

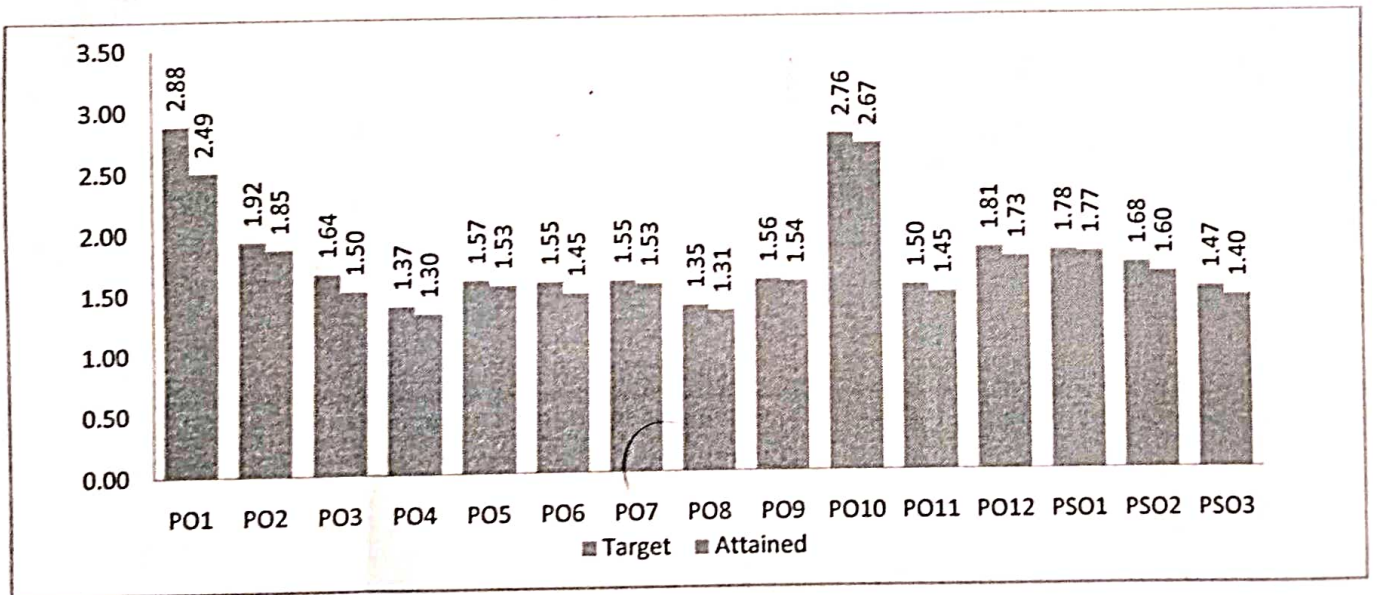
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DEPARTMENT OF FOOD TECHNOLOGY**

Batch 2019-23

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct attainment	2.44	1.65	1.20	1.13	1.26	1.16	1.27	0.99	1.43	2.69	1.31	1.66	1.57	1.36	1.18
Indirect Attainment	2.69	2.64	2.70	2.00	2.59	2.63	2.57	2.56	2.00	2.63	2.01	2.01	2.56	2.56	2.30
Direct attainment 50% (A)	1.96	1.32	0.96	0.90	1.01	0.93	1.02	0.80	1.14	2.15	1.05	1.33	1.26	1.09	0.94
Indirect attainment 20% (B)	0.54	0.53	0.54	0.40	0.52	0.53	0.51	0.51	0.40	0.53	0.40	0.40	0.51	0.51	0.46
Overall attainment	2.49	1.85	1.50	1.30	1.53	1.45	1.53	1.31	1.54	2.67	1.45	1.73	1.77	1.60	1.40

PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Target	2.88	1.92	1.64	1.37	1.57	1.55	1.55	1.35	1.56	2.76	1.50	1.81	1.78	1.68	1.47
Attained	2.49	1.85	1.50	1.30	1.53	1.45	1.53	1.31	1.54	2.67	1.45	1.73	1.77	1.60	1.40



Academi  coordinator

  
HOD

