



Department of Chemical Engineering

PROGRAMME OUTCOMES

PO1 : Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 :Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 :Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 :Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 :Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 :The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal & cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 :Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 :Ethics: Apply ethical principles and commit to professional ethics & responsibilities and norms of the engineering practice.

PO9 :Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings.

PO10 :Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 :Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.



Gopal Krishna College of Engineering and Technology, Jeypore

PO12 :Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent & life-long learning in the broadest context of technological change.

CO-PO Mapping for Fuel & Energy Technology

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	2	-	-	-	-	1
CO2	3	3	1	1	1	-	2	-	-	-	-	1
CO3	2	2	2	1	1	1	2	-	-	-	-	1
CO4	2	2	1	1	2	1	3	1	-	-	-	2

CO-PO Mapping for Process Simulation and Modelling

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	-	-	-	-	-	1
CO2	3	3	2	2	2	-	-	-	-	-	-	1
CO3	3	3	2	3	3	-	-	-	-	-	-	2
CO4	2	2	3	2	3	1	1	-	1	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Mass Transfer – II

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	-	-	-	-	-	1
CO2	3	3	2	1	1	-	-	-	-	-	-	1
CO3	3	2	3	2	2	1	1	-	-	-	1	1
CO4	2	2	2	2	2	1	2	1	-	-	-	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Chemical Reaction Engineering

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	3	-	2	1	-	-	-	-	-	-	1
CO2	3	3	2	1	2	-	-	-	-	-	-	1
CO3	3	2	3	2	2	1	1	-	-	-	1	1
CO4	3	3	3	2	2	1	1	-	-	1	1	2
CO5	2	3	2	3	2	-	-	-	-	-	-	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Chemical Process Technology

Course Outcome s	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	1	-	1	-	1	-	-	-	-	1
CO2	3	3	2	1	1	-	1	-	-	-	-	1
CO3	2	3	2	2	1	1	2	-	-	-	1	1



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Process Dynamics and Control

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	1	1	2	-	-	-	-	-	-	1
CO2	3	3	2	2	2	-	-	-	-	-	-	1
CO3	3	3	3	2	2	1	1	-	-	-	1	1
CO4	3	2	3	2	3	1	1	-	-	1	1	2
CO5	2	2	3	2	3	1	1	1	1	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Polymer Technology

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	-	-	-	-	-	1
CO2	3	3	2	1	2	-	-	-	-	-	-	1
CO3	3	2	2	2	2	1	1	-	-	-	-	1
CO4	2	2	3	2	2	1	1	-	1	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Petroleum Refinery Engineering

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	1	-	1	-	1	-	-	-	-	1
CO2	3	3	2	1	2	1	2	-	-	-	-	1
CO3	3	3	3	2	2	1	2	-	-	-	1	1
CO4	2	2	2	1	2	1	3	1	-	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Continuum Transport Phenomena

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	-	-	-	-	-	1
CO2	3	3	2	2	2	-	-	-	-	-	-	1
CO3	3	2	2	2	2	-	-	-	-	-	-	1
CO4	3	3	3	2	2	1	1	-	-	-	1	2
CO5	3	3	3	3	3	1	1	-	1	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CO-PO Mapping for Chemical Process Calculation

Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2
CO1	3	2	-	-	1	-	-	-	-	-	-	1
CO2	3	3	1	1	1	-	-	-	-	-	-	1
CO3	3	3	2	2	2	-	-	-	-	-	-	1
CO4	3	2	2	2	2	-	1	-	-	-	-	1
CO5	3	3	2	2	3	-	1	-	-	1	1	2



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CEPC2005 – HEAT TRANSFER

COs \ POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	1	1	2	3	-	2	3	1	1
CO2	3	2	3	1	1	2	3	-	2	3	1	1
CO3	3	2	3	1	1	2	3	-	2	3	1	1
CO4	3	2	3	1	1	2	3	-	2	3	1	1
CO5	3	2	3	1	1	2	3	-	2	3	1	1



**Gopal Krishna College of Engineering and Technology,
Jeypore**

CEPC2007 – CHEMICAL ENGINEERING THERMODYNAMICS

COs \ POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	-	-	-	-	-	-	-	-	-
CO2	2	3	2	2	1	-	-	-	-	-	-	-
CO3	2	2	3	3	2	-	-	-	-	-	-	-
CO4	2	2	2	3	2	-	-	-	-	-	-	-
CO5	2	2	3	2	1	-	-	-	-	-	-	-

