

Course Code	CP407			
Course Title	Process Engineering Research Project I			
No. of Credits	3			
Pre-requisites	None			
Compulsory/Optional	Prior approval of the Head of the Department for the selected study.			
Aim(s): To empower students with skills required to develop a comprehensive research proposal. This course serves as a preparatory stage for the 8 th semester course, CP411 Process Eng. Research Project II.				
Intended Learning Outcomes:				
On successful completion of the course, the students should be able to				
ILO1: Extract relevant information from reliable sources and critically analyze the information gathered.				
ILO2: Compose a research hypothesis/questions, overall aim and specific objectives.				
ILO3: Design scientific procedures to test the research hypotheses or to answer the research questions composed.				
ILO4: Demonstrate in depth knowledge in the methodology developed.				
ILO5: Plan for efficient management of time and resources for the successful completion of the research project.				
ILO6: Effectively communicate the research proposal via verbal and written forms.				
Topics	Time Allocation/Hours			
	L	T	P	A
• Research methodology	04		68	
• Good laboratory practices	04			
• Design of experiments	03			
• Project formulation Search for, and retrieval of, information required through a literature survey, Identification and optimum utilisation of available resources, Define research problem or develop research hypothesis, Validation of methodology, Technical report writing.				
Total equivalent hours	11		34	
Recommended Texts:				
<ul style="list-style-type: none"> • Wallwork, A., English for Writing Research Papers, (2 Ed), Springer, 2016. • David, V. T., Research Methods for Engineers, (1 Ed), Cambridge University Press, 2014. • Carey, S. S., A Beginner's Guide to Scientific Method, (4 Ed), Wadsworth, Cengage Learning, 2011. • Ogden, T., Goldberg, I., Research Proposals - A guide to success, (3 Ed), Academic Press-Elsevier, 2002. 				
Assessment	Percentage Mark			
In-course				100
Presentation and viva-voce	50			
Project report / paper	50			
End semester				

