

**DEPARTMENT OF PRODUCTION ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI-620015.**

COURSE OUTLINE				
Course Title	PRODUCT ANALYSIS AND COST OPTIMIZATION			
Course Code	PRH014	No. of Credits	03	
Department	Production Engineering	Faculty	S Mohan	
Pre-requisites Course Code				
E-mail	smohan@nitt.edu	Contact No.	9655251150	
Course Type	Core course		Elective course	√
Course objectives				
<ul style="list-style-type: none"> ➤ To perform value engineering projects ➤ To perform cost accounting 				
Course Outcomes				Aligned Programme Outcomes
<ul style="list-style-type: none"> ➤ Execute value engineering projects ➤ Cost computation for various fabricated products 				P01, P03, P07, P11, P12

S. No	Week	Topic	Mode of Delivery
1.	1 st Week	New product strategy, market definition	Lecture C&T/ PPT Video
		Idea generation - Design process	
		Forecasting sales potential - Product engineering	
2.	2 nd Week	Manufacturing planning	
		Selection of economical pro	
		Standardization - Simplification	
3.	3 rd Week	Value engineering	
		Evaluation of function determining function	
		Classifying function	
4.	4 th Week	Evaluation of costs	
		Evaluation of worth	
		Determining worth - Evaluation of value	
5	5 th Week	Value Engineering	Lecture
		Job plan information phase	C&T/ PPT
		Speculation Phase, Analysis phase	Video
Cycle Test-1			
6	6 th Week	Development phase	Lecture
		Presentation Phase	C&T/ PPT
		Implementation Phase	Video
7	7 th Week	Follow up phase	
		Fast Diagramming	
		Cost models and life cycle costs	
ASSIGNMENT			
8	8 th Week	Cost accounting and cost estimation	Lecture
		Cost calculations for machined components	C&T/ PPT
		Welding, casting and forging components	Video

9	9 th Week	Calculation of selling price and activity based cost analysis	
		Calculation of selling price and activity based cost analysis	
Cycle Test-II			

COURSE ASSESSMENT METHODS

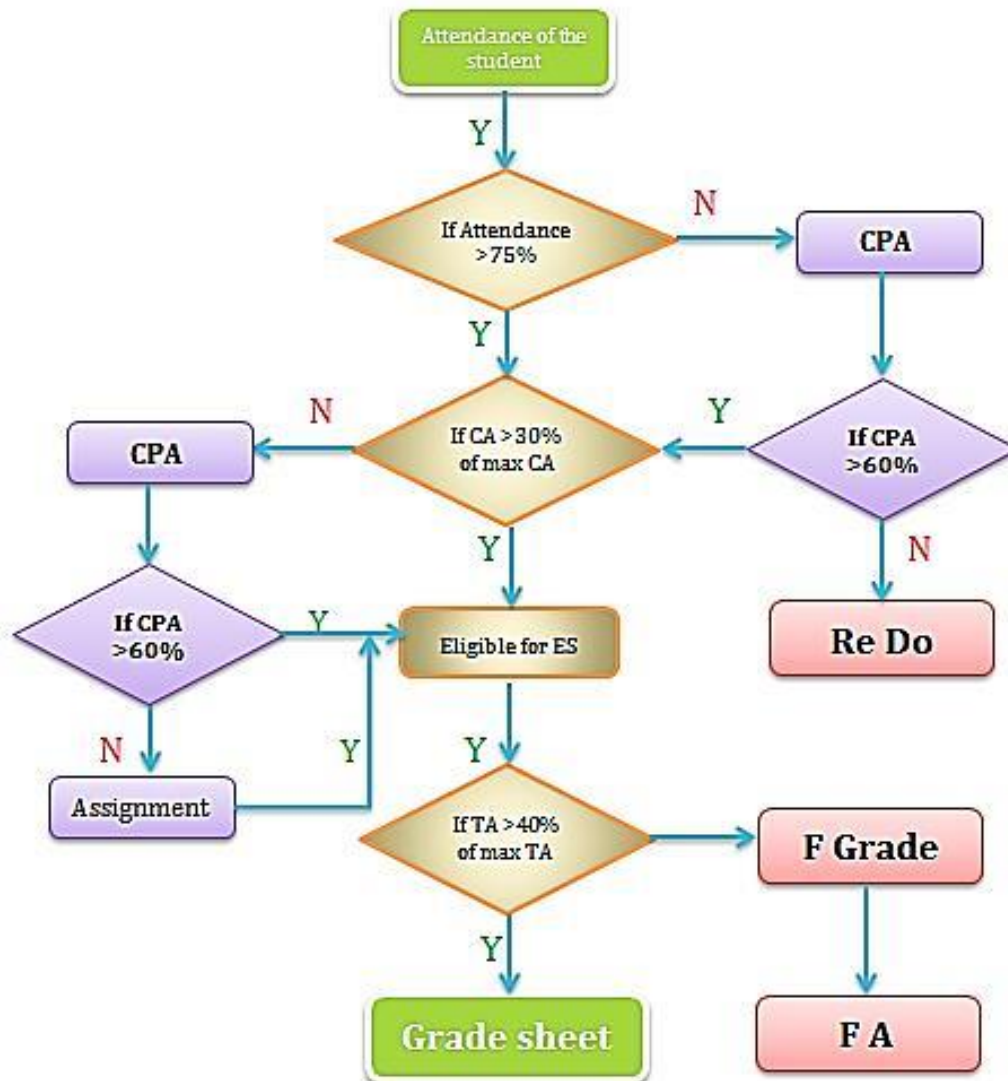
S.No	Mode of Assessment	Week	Duration	% Weightage
1	Cycle test-1	4 th week	60 Minutes	20
2	Cycle Test 2	8 th week	60 Minutes	20
3	Assignment-I	7 th week		10
4	Descriptive Type Examination	10 th week	180 Minutes	50

ASSESSMENT

1. Attending all the assessments is MANDATORY for every student.
2. If any student is not able to attend any of the continuous assessments (CAs: Cycle test, Assignment) due to genuine reason, student is permitted to attend the compensation assessment (CPA) with 20 % weightage. If any student missed one cycle test of 10 % weightage then CPA will be considered for 10 % weightage. (This is not valid for students who have attendance lag also. Refer Pt. 3 under Attendance)
3. At any case, CPA will not be considered as an improvement test.
4. Students are expected to score minimum 30% of the maximum mark of the class in the CAs to attend the end semester examination in addition to the attendance requirement. Otherwise the student is permitted to attend CPA and is expected to score more than 60% marks to get eligibility to appear for end semester examination. However, the score in CPA WILL NOT be considered for computing marks for CA. Student who fails to score 60% in CPA will take up additional assignments to get eligibility for writing End Semester examination.

5. Finally, every student is expected to score minimum 40% of the maximum mark of the class in the total assessment (1, 2, 3, 4 and 5) to pass the course. Otherwise the student would be declared fail and 'F' grade will be awarded. Further he can take up only FORMATIVE ASSESSMENT.

Refer the following flow chart for more clarity:



CA: Continuous Assessment Mark of a student TA: Total Assessment Mark of a student Max. CA : Maximum Continuous Assessment Mark of the class Max. TA : Maximum Total Assessment Mark of the class FA : Formative Assessment ES: End Semester CPA: Compensation Assessment

ESSENTIAL READINGS: Textbooks, Reference Books Website addresses, journals, etc.

Reference Books

1. Samuel Eilon, "Elements of Production Planning and Control", Universal Book Co, 1984
2. Narang, C.B.S and Kumar V, "Production and Costing", Khanna publishers, 1983.

COURSE EXIT SURVEY

1. Students can meet the faculty at any stage in the course duration in case he/she finds difficulty in understanding the concept.
2. Feedback form issued to students to express their comments during mid of the semester and after completing the syllabus. Students are requested to give genuine feedback about the course.
3. Student knowledge about the topic covered in this course will be judged based on marks obtained in the written examinations and during surprise test.

Course Policy (including plagiarism, academic honesty, attendance, etc.)

Examination:

- Students must attend all the examinations (cycle tests, surprise test and end semester examination). If a student fails to attend any of the cycle test due to genuine reason he/she will be permitted to write re-test and the portion will be the combined portion of cycle test 1 and 2.
- Students should submit assignments as per the instructions given in the class. Late submission is not permitted.

Attendance:

- The minimum attendance for appearing for the semester examination is 75%.
- Those students, whose attendance falls below 75% but above 50% in the course, shall attend mandatory classes before the semester examinations to qualify to write semester exam.
- The students who are having attendance less than 50% has to redo the course in the next semester or academic year (at the time of offering the course).
- The Institute follows relative grading with flexibility given to teachers to decide the mark ranges for grades. The assessment of the course will be done on the basis of marks.

Correspondence

- All the correspondence (schedule of classes/schedule of assessment course material/ any other information regarding this course) will be done through their class representative.

ADDITIONAL COURSE INFORMATION

Students can reach course coordinator by fixing appointment through E-mail smoha@nitt.edu or phone 9655251150

FOR APPROVAL

		
Course Faculty	CC Chairperson	HOD