

## Syllabus Structure of Product Based Education and Product Economy

**Dr. Jitendra A. Hole**  
**Professor,**  
**Mechanical Engineering Department**  
**JSPM'S Rajarshi Shahu College of Engineering, Pune**

Honorable Prime Minister Appeals to become self-dependent India. The one of the best and effective medium is professional colleges. Product based education will be the mandatory part of structure and syllabus of academics so that every student of professional college will compulsory participate.

The one of the way to become आत्मनिर्भरभारत is Product based education. students should be able to competent about following Program outcomes: Ethics, Individual and Teamwork, Communication, Project Management and Finance, Lifelong Learning, Discipline ,Good Listener ,Good Speaker, Sports Activities, Focus on End of Results, Sharp Observation, Manage Relationship, Sense Of Respect To Elder And Society, Take Responsibility, Always Remain Inpursuit Of Knowledge, Punctual, Attentive, Consistent, Honest, Know His/her Strength, Never Lies To Him/her, Good Person, Humble, Kind, Obedient, Grasping Power, Experience, Retention Power, Discretionary, Rationality, Talents, Recollection Power, Enthusiasm, Potential, Hard Work, Character/principled, Healthy, Patience, Gentlemanly, Dexterity

In this system the selection of product is very important and it is needful to local social community. Students can select the product of Traditional product (Reference: - Pradhan Mantri Kaushal Vikas Yojana (PMKVY)) or local बाराबलुतेदार community. Selection of one product is compulsory and college is providing all facilities to manufacture the product. College will be allotted one internal and external guide to observe, examine and analysis and proper allotment of marks. Once product selection is done then the student and internal guide will be list out the name of core subject, interdisciplinary subject, basic sciences subject and other source of engineering and also list out the contents of all subject and its percentagewise distribution. Student will be study, understand and plan of the method of manufacturing product. Once the final product is finished then evaluator of examiner should check the feasibility or inspect the product and finalized the selling price of product then upload the actual photograph of product.

College or student should decide and finalized the area of selling product (Student can select village, city, taluka, district or some specific community etc). Once the product will sell then all records and money are submitted to college and college should submit all the financial and academic record to the university. It should very clean and straight forward Procedure.

**The Proposed structure of Product based Education will be containing examination scheme, training scheme & syllabus point. The PBL structure of four-year degree course of two semesters per year is as follows:**

### Proposed Structure of Product based Education

Class	First Year				Second Year				Third year				Final Year			
	Sem.-I		Sem.-II		Sem.-III		Sem.-IV		Sem.-V		Sem.-VI		Sem.-VII		Sem.-VIII	
Examination scheme	TW	OR	TW	OR	TW	OR	TW	OR	TW	OR	TW	OR	TW	OR	TW	OR
	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks	Marks
Training scheme	08 hrs/week		08 hrs/week		08 hrs/week		08 hrs/week		08 hrs/week		08 hrs/week		08 hrs/week		08 hrs/week	
1)	Basics & Literature survey, Personal communication and confirmation of external trainer	Actual practical & hands on training by external trainer ( 03 months time ) After that manufacturing of Product and submitted it central workshop of college	Basics & Literature survey design and panning of same product manufacturing machine	Fabrication of Product manufacturing machine & testing and submitted to central workshop	Actual production stated and make inventory	Marketing advertising and selling of product	Report making to hoe this product is useful for self dependant India. Modification of product & Machine (if any)	Overall report making from first year to final year work								

**Note – Syllabus of Product based education will be based on above structure. (Ref. Bloom's Taxonomy)**

Once the syllabus & structure will be implemented then the college will strictly follow the rules & regulation for completion & selling of final product with audit.

**The Product Based Education Summary Table is as follows:**

**Product Based Education Summary Table**

S N	Name of Prod uct	Nam e of stude nts	Name of intern al guide	Name of trained person (Exter nal)	Prod uct start date	Name of Engineer ing subject applicabl e	Conte nts of subjec t	% of subject knowle dge Used	CO Mapp ed	% of CO Mapp ed
1	2	3	4	5	6	7	8	9	10	11

Name of interdisci plinary subject applicable	Content s of subject	% of subject knowle dge Used	CO Mapp ed	% of CO Mapp ed	Name of basic science subject applica ble	Conte nts of subjec t	% of subject knowle dge Used	CO Mapp ed	% of CO Mapp ed
12	13	14	15	16	17	18	19	20	21

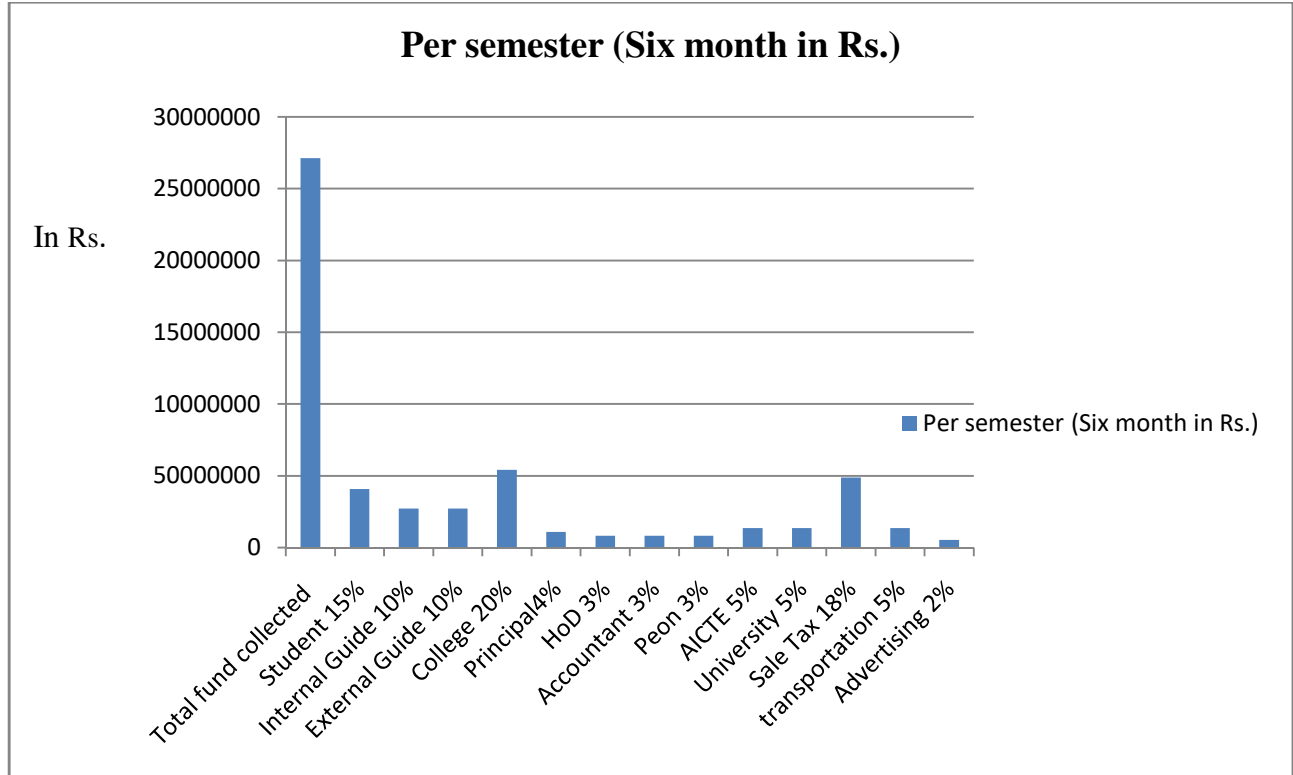
Name of source other than engine ering	Conte nts of subje ct	% of kno wled ge Used	Manuf acturi ng time	Produ ct end date	Final finish product photogr aph	Sign of External Evaluator	Final Price of Produ ct	Selli ng pric e of Pro duc t	Utiliz ation comm unity	PO Mapp ed	% of PO Map ped	Re ma rks
22	23	24	25	26	27	28	29	30	31	32	33	34

**Economics of Product based Education:**

- Raw Material is provided by college.
- Sale Price of Product is minimum Rs 100
- The distribution of fund collected from selling of product is as follows
  - 1)College 20%, 2)Student 15%, 3)Internal Guide 10%, 4)External Guide 10%,
  - 5)Principal4%, 6)HOD 3%, 7)Accountant 3%, 8)Peon 3%, 9)AICTE 5%,
  - 10)University 5%, 11)Sale Tax 18%, 12)Advertising 2%, 13)Transportation 5%
- Total Students (As Per AICTE Record) = 2712311
- Total Products =2712311
- Sale Price of Product is minimum Rs 100
- Total Fund Collected = Rs. 27,12,31,100/- (Per semester)
- Student Teacher ratio = 20:1 Means 20 product per staff
- As per ratio total staff required in number = 135616
- Note: 1) This Total fund collected by government only  
2) All amounts will be transfer the individual account only  
3) College should take care for misuse of product

**Distribution of Money**

Items	Per semester (Six month in Rs.)	Per month in Rs.	Per day in Rs.	Remarks
Total fund collected	271231100	45205183	9041037	
Student 15%	40684665	6780778	1356156	
Internal Guide 10%	27123110	4520518	904104	
External Guide 10%	27123110	4520518	904104	
College 20%	54246220	9041037	1808207	
Principal4%	10849244	1808207	361641	
HOD 3%	8136933	1356156	271231	
Accountant 3%	8136933	1356156	271231	
Peon 3%	8136933	1356156	271231	
AICTE 5%	13561555	2260259	452052	
University 5%	13561555	2260259	452052	
Sale Tax 18%	48821598	8136933	1627387	
transportation 5%	13561555	2260259	452052	
Advertising 2%	5424622	904104	180821	



**Conclusion:** Product based education is improving the technical, financial, marketing ability, communication skill of students and meets the program outcome. It also competent about social awareness, market psychology, human psychology, personal relation and aware about different problems, difficulties in society. Product based education is not only improving the skill development but also improve the financial condition of individuals so it is used for economic development of country.

ॐ सर्वे भवन्तु सुखिनः।सर्वे सन्तु निरामयाः।सर्वे भद्राणि पश्यन्तु।मा कश्चित् दुःख भाग्भवेत्॥

ॐ शान्तिः शान्तिः शान्तिः॥

हिन्दी भावार्थः

सभी सुखी हों, सभी रोगमुक्त रहें, सभी का जीवन मंगलमय बनें और कोई भी दुःख का भागी न बने।हे भगवन हमें ऐसा वर दो!