

SATUAN ACARA PERKULIAHAN
PROYEK DAN PERENCANAAN INDUSTRI

Oleh :

Prof. Dr. Ir. Sukardi, MM

Dr. Ir. Aji Hermawan

Prof Dr. Irawadi Jamaran



DEPARTEMEN TEKNOLOGI INDUSTRI PERTANIAN
FAKULTAS TEKNOLOGI PERTANIAN
INSTITUT PERTANIAN BOGOR

2016

Course Syllabus

Project and Industrial Planning

Course title	Project and Industrial Planning		
Course code: TIN470	Credits: 3(2-3)	Semester: 7	Compulsory/optional: Compulsory
Coordinator's name	Prof. Dr. Ir. Sukardi, MM	Instructor's name	Dr. Ir. Aji Hermawan Prof. Dr. Irawadi Jamaran
Main reference (Title, author, year) (maximum 3 references)	<ol style="list-style-type: none"> 1. Kerzner H. 2013. Project Management: A System Approach to Planning, Scheduling and Controlling. John Wiley & Sons, Inc. 2. Chapman C and S Ward. 2003. Project Risk Management: Processes, Techniques and Insight. John Wiley & Sons. 3. Tonchia Stefano. 2016. Industrial Project Management: Planning, Design, and Construction. Springer 		
Additional reference (Supplemental materials)	<ol style="list-style-type: none"> 1. Behrens, W., and P.M. Hawranek. 1991. Manual for the Preparation of Industrial Feasibility Studies. United Nations Industrial Development Organization (UNIDO). 2. Longenecker, J.G., C.W. Moore, and J.W. Petty. 2000. Small Business Management: An Entrepreneurial Emphasis. South-Western College Publishing. 3. Mancuso, J.R. 1992. How to Prepare and Present a Business Plan. Simon & Schuster. 		
Brief description	Introduction to the basic and principle of project and industrial planning covering engineering and technology application to develop a business activity or project plan in developing agroindustry. Management technique, planning, scheduling, controlling, project evaluation, process or operation planning used to analyze the translating technology based idea into reality.		
Prerequisite	<ol style="list-style-type: none"> 1. Agroindustry Materials Science 2. Industrial Environmental Management 3. Industrial Work Methods and Design 4. Layout and Material Handling 5. Engineering Economics 		
Course outcome	<ol style="list-style-type: none"> A. Understand concept, element, technique and risk project planning B. Understand network planning technique application to analyze activity and project resources C. Understand project handling with software MS Project D. Understand risk definition in project management, identification, monitoring and control risk E. Understand international and national project source cost, and procedure to get the project cost F. Understand business plan application in project cost, function, planning and present a business plan G. Understand market feasibility analysis technique and project or industrial marketing H. Collaborate in a team environment I. Demonstrate effective communication orally and in writing 		

Relationship between course outcomes and student outcomes	<ol style="list-style-type: none"> 1. Course Outcomes A-G support Student Outcomes 1, 2, 4, 5, 6, 8, 9, 11, 12, 13, and 14 2. Course Outcomes H supports student outcomes 5, 6, 7, 12, 13 and 14 3. Course Outcomes I supports student outcomes 5, 7, 12, 12, and 14.
Offered to	Study Program of Agroindustrial Technology-IPB and other study programs as elective course with transcript verification
Topics to be covered	<ol style="list-style-type: none"> 1. Introduction: definition, element and project cycle 2. Project planning: concept, element and technique 3. Network planning technique: diagram activity on arc, diagram activity on node, resources analysis 4. Network analysis: use of software Microsoft project 5. Project feasibility study: market analysis, raw material, location, site, environment, technology, cost, human resources, evaluation and financial analysis 6. Risk management: definition, identification, analysis and control risk 7. Project source cost: national and international 8. Business plan planning: function, preparing and business plan presentation 9. International issue: international trade, multinational corporation
ATSP Student Outcomes	<ol style="list-style-type: none"> 1. An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities 2. An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies 4. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives 6. An ability to identify, analyze, and solve broadly-defined engineering technology problems 7. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature 8. An understanding of the need for and an ability to engage in self-directed continuing professional development 9. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity 11. A commitment to quality, timeliness, and continuous improvement 12. An ability to accomplish the integration of system using appropriate analytical, computational, and application practices and procedures 13. An ability to apply knowledge of probability, statistics, engineering economic analysis and cost control, and other technical sciences and specialties necessary in the field of Agroindustry engineering technology 14. An ability to trigger ideas development toward new economic business

	concept				
Percentage	Knowledge	40 %	Facility/media	x	White board
	Skill	40 %		x	LCD projector
	Attitude	20 %		x	Computer
Activity, contact hours (hour/week)	Lecture	2 hours/week		x	Wi-Fi
	Lab work	3 hours/week		x	Sound system
	Tutorial	-			Courseware
	Others	-			Other:
Assessment	Assignment	75 % (group assignments, feasibility study, business plan)			
	Examination	15 % (mid and final exams)			
	Quiz	10 %			

JADWAL DAN MATERI PERKULIAHAN

Week	Learning Outcomes	Topics	References	Lecturer
1.	Understand concept, element, technique and risk project planning	✓ Introduction: definition, element and project cycle	1,2	Sukardi
2.		✓ Project planning: concept, element and technique	2	Sukardi
3.	Understand network planning technique application to analyze activity and project resources	✓ Network planning technique: diagram activity on arc, diagram activity on node, resources analysis	2	Sukardi
4.				
5.	Understand project handling with software MS Project	✓ Network analysis: use of software Microsoft project	2	Sukardi
6.	Understand risk definition in project management, identification, monitoring and control risk	✓ Risk management: definition, identification, analysis and control risk	2	Sukardi
7.				
<i>Midterm Exam</i>				
8.	Understand market feasibility analysis technique and project or industrial marketing	✓ Project feasibility study: market analysis, raw material, location, site, environment, technology, cost, human resources, evaluation and financial analysis	2	Aji
9.				
10.				
11.	Understand business plan application in project cost, function, planning and present a business plan	✓ Business plan planning: function, preparing and business plan presentation	1	Aji
12.	Understand international and national project source cost, and procedure to get the project cost	✓ International issue: international trade, multinational corporation	1	Aji
13.	Collaborate in a team environment	✓ Project Discussion	1,2,3	Aji
14.	Demonstrate effective communication orally and in writing	✓ Project Discussion	1,2,3	Aji

MAIN REFERENCE:

1. Kerzner H. 2013. Project Management: A System Approach to Planning, Scheduling and Controlling. John Wiley & Sons, Inc.

2. Chapman C and S Ward. 2003. Project Risk Management: Processes, Techniques and Insight. John Wiley & Sons.
3. Tonchia Stefano. 2016. Industrial Project Management: Planning, Design, and Construction. Springer

JADWAL DAN MATERI RESPONSI

Week	Learning Outcomes	Topics	References	Lecturer
1.	Understand concept, element, technique and risk project planning	✓ Introduction: definition, element and project cycle	1,2	Sukardi
2.		✓ Project planning: concept, element and technique	2	Sukardi
3.	Understand network planning technique application to analyze activity and project resources	✓ Network planning technique: diagram activity on arc, diagram activity on node, resources analysis	2	Sukardi
4.				
5.	Understand project handling with software MS Project	✓ Network analysis: use of software Microsoft project	2	Sukardi
6.	Understand risk definition in project management, identification, monitoring and control risk	✓ Risk management: definition, identification, analysis and control risk	2	Sukardi
7.		✓ Project Discussion		
<i>Midterm Exam</i>				
8.	Understand market feasibility analysis technique and project or industrial marketing	✓ Project feasibility study: market analysis, raw material, location, site, environment, technology, cost, human resources, evaluation and financial analysis	2	Aji
9.				
10.				
11.	Understand business plan application in project cost, function, planning and present a business plan	✓ Business plan planning: function, preparing and business plan presentation	1	Aji
12.	Understand international and national project source cost, and procedure to get the project cost	✓ International issue: international trade, multinational corporation	1	Aji
13.	Collaborate in a team environment	✓ Project Discussion	1,2,3	Aji
14.	Demonstrate effective communication orally and in writing	✓ Project Discussion	1,2,3	Aji

