



MODULE HAND BOOK
MECHANICAL ENGINEERING VOCATIONAL EDUCATION STUDY PROGRAM
FACULTY OF ENGINEERING – UNIVERSITAS NEGERI PADANG

COURSE NAME	CODE	Course classification	CU		Sem	Version
			Theory	Pract		
Entrepreneurship	UNP1.60.3101	General course for softskill / Character building for entrepreneur	3	0	3	1
Responsible	Muhd. Adri, S.Pd, MT, Dr. Marwan, M.Pd, Thamrin, S.Pd, MM			Signature		
INFORMATION	Dean	Head of Department	Coordinator of study program			
	<u>Dr. Fahmi Rizal, M.Pd., M.T</u> NIP. 195912041985031004	<u>Drs. Purwantono, M.Pd</u> NIP. 196308041986031002	<u>Drs. Purwantono, M.Pd</u> NIP. 196308041986031002			
Program Learning Outcome	Program learning outcome of Mechanical engineering vocational education:					
	<ol style="list-style-type: none"> 1. Possess a good ability to apply the basic science (mathematics and natural sciences) and other disciplines in profesional jobs / projects (Knowledge-understanding) <ol style="list-style-type: none"> 1.1. possess a good understanding and can apply the basic concept of mathematics to solve various technical problems 1.2. possess a good understanding and can apply basic the concept of physic to solve various technical problems 1.3. possess a good understanding and can apply basic the concept of chemistry to solve various technical problems 2. Possess a critical and creative thinking in identifying, formulating, problem solving and evaluating various problems in mechanical engineering using the most appropriate and effective scientific method (Engineering analysis, investigations and assessment): <ol style="list-style-type: none"> 2.1. problem identification skills 2.2. problem analysis skills 2.3. problem evaluation skills 3. Possess a good ability in designing, manufacturing and operating machines (Engineering design) 					

- 3.1. able to formulate ideas/concepts into a technical drawing, design and budget plans
- 3.2. able to operate various machines and other engineering equipment with the correct standard operating procedure
- 3.3. able to design a machine or machinery system based on a valid scientific theory
- 3.4. able to realize a concept/design into a prototype, manufacturing process and engineering system
- 4. Possess a good ability to design, organize and evaluate the education and learning process in *mechanical engineering vocational education. (Education design)*
 - 4.1. able to design curriculum and learning process by considering various aspects
 - 4.2. able to organize, control, evaluate and improve the quality of the learning process
 - 4.3. able to develop an interesting, effective and efficient learning medias
- 5. Possess a good ability to adapt to development in science and technology and apply it into professional jobs by considering any non-technical aspects. **(Engineering practice)**
 - 5.1. able to innovate and develop technology in the field of mechanical engineering by considering social, economic and environmental aspects
 - 5.2. able to carry out the optimization process and increase the efficiency of machines or machining system.
 - 5.3. able to improve the performance of machine/ machinery system by applying the information technology
- 6. Possess a good softskil and spirit of lifelong learning **(Transferable skill / softskill)**
 - 6.1. possess a religious character
 - 6.2. possess a spirit of nasionalisme, social sensitivity and environmental consevation orientation
 - 6.3. possess the ability to communicate effectively and work together in teamwork
 - 6.4. possess the ability to transfer science and technology to society to improve the quality of life
 - 6.5. possess a good characters of entrepreneur

Course learning outcomes

Course Learning Outcomes

CLO	PLO
1. Students are able to observe, understand, explain the definition of entrepreneurship, the terms and characteristics of entrepreneurship	6.3, 6.4, 6.5
2. Students are able to understand, explain the steps in building a business organization and starting a business	6.3, 6.4, 6.5
3. Students are able to understand how to determine business ideas and ideas and analyze the type of business to be developed	6.3, 6.4, 6.5
4. Students are able to compile, present and revise a Business Plan according to the characteristics of the business to be developed	6.3,6.4, 6.5
5. Students are able to practice and implement a business plan into a developed business	6.3, 6.4, 6.5

	6. Students are able to develop business opportunities with the support of information technology as a means of delivery, promotion and market expansion / business consumers	6.3, 6.4, 6.5
	7. Students are able to put a business plan into a real business	6.3, 6.4, 6.5
	8. Students are able to compile reports on entrepreneurial practice and present them	6.3, 6.4, 6.5
	9. Students are able to reflect and review the results of business practices that have been carried out	6.3, 6.4, 6.5
Course description	<p>This course contains knowledge, attitudes and skills based on creative and innovative thinking regarding the basic principles of entrepreneurship, entrepreneurial development models, entrepreneurial strategies, business ethics in entrepreneurship, business opportunity analysis, business feasibility studies and business management (marketing, production, finance, resources, business legality, technology and information) with an expository approach, observation and inquiry.</p> <p>The scope of the concept of entrepreneurship that will be discussed and discussed in this course is oriented towards two main aspects, namely value-oriented and goal-oriented. One of the important content that needs to be introduced to students is the internalization of the value system contained in entrepreneurship, namely independence, creative thinking, soft-skills, interpersonal skills, persuasive communication, hard work, persistence, and others. In addition, being responsive to technological changes and taking advantage of the presence and development of these technologies in the business and empowering the environmental community through the application of social entrepreneurship principles. Eventually,</p>	
References	Main References (RU) :	
	<ol style="list-style-type: none"> 1. Baron, Robert A & Shane, Scott A. (2007). <i>Entrepreneurship</i> : A Process Perspective, Mason, USA: South-Western Cengage Learning 2. Duening, Thomas, et.al. (2015). <i>Technology Entrepreneurship, Taking Innovation to The Market Place</i>, Oxford, UK: Academic Press an Imprint of Elsevier 3. Hisrich, Robert D, et.al. (2013). <i>Entrepreneurship</i>, 9th Edition, New York: McGraw-Hill 	
	Additional References (RP)	
	<ol style="list-style-type: none"> 1. Abas Sunarya, Sudayono and Asep Saefullah. (2011). <i>Entrepreneurship, Management and Development of IT-Preneurship</i>. Yogyakarta: Publisher Andi 2. Bambang ME Jati & Priyambodo, Tri Kountoro. (2015). <i>Entrepreneurship, Technopreneurship for Exact Science Students</i>, Yogyakarta: Andi Publisher 3. Ganefri, Hendra Hidayat. (2016). <i>Entrepreneurship in Higher Education</i>, Bandung: Rineka Cipta 4. Geoffrey G. Meredith. <i>Entrepreneurship, Theory and Practice</i>. Jakarta: PT. Pustaka Binaman Pressindo. Justin GL, Carlos W. Moore; and J. William Petty, 2001, <i>Entrepreneurship: Small Business Management</i>, Book 1 and Book 2, Jakarta: Salemba Empat Publisher .. 5. Muhammad Adri. (2019). <i>IT StartUp, Implementation of Information Technology Entrepreneurship, Basic Concepts, Design and Implementation</i>, Yogyakarta: Main Graphic Media (on Proof Reading Process) 6. Okki Trinanda Miaz. (2016). <i>Starting a New Business</i>, Malang: NAMS Publisher (Open Access & Downloadable) 7. Okki Trinanda Miaz. (2018). <i>Technopreneurship</i>, Malang: NAMS Publisher (Open Access & Downloadable) 8. Nurul Hiayat. (2017). <i>Easy Ways to Become a Technopreneur</i>, Yogyakarta: Graha Ilmu 9. Zimmerer, Thomas W, Norman M. Scarborough with Doug Wilson, 2008, <i>Entrepreneurship and Management of Ushaa Kecil</i>, Edition 5, Book 1 and Book 2, Jakarta: Salemba Empat Publisher 	
Learning media	Software:	Hardware:
	1. Material Presentation Slides	1. Printed Graphics

	2. Excel Application for Business Plan Budgets 3. Video Lecture Teaching 4. Mobile e-Commerce Application 5. Mobile Social Media Application	2. Sample Product 3. Display Design
Teaching team		
Assessment	Mid Test, Final Test, Individual task & team, group discussion and presentation	
Prerequisite courses	No	

COURSE SUBJECT

Week	Expected competencies	Topics	Method and strategy for learning	Assignment	Criterion / Assessment indicator	References
1	2	4	5		6	7
(1)	CLO-1: (PLO-6.3, 6.4, 6.5) Students are able to observe, understand and explain the importance of entrepreneurship courses and the role of entrepreneurs in nation building, factors that cause entrepreneurial success and motivation.	<ul style="list-style-type: none"> - Introduction to courses & lecture contracts. - The purpose and benefits of lectures - Entrepreneurship related issues - Examples of successful entrepreneurs - Entrepreneurial motivation 	<ul style="list-style-type: none"> - Discussion 	<ul style="list-style-type: none"> - Paper - Oral test - Quiz - Observation Report 	<ul style="list-style-type: none"> - Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments 	RU. 1,2,3 RP. 1,2,3,4,5
(2)	CLO-1: (PLO-6.3, 6.4, 6.5) Students are able to observe, understand, explain the definition of entrepreneurship, the terms and characteristics of entrepreneurship	<ul style="list-style-type: none"> - Entrepreneurship Concept - Definition of entrepreneurship - Entrepreneurial requirements - Characteristics of entrepreneurship (Learning through observation of the experiences of successful and failed entrepreneurs) - Determine business models 	<ul style="list-style-type: none"> - Discussion - Discovery Learning - Case study - Field observation 	<ul style="list-style-type: none"> - Oral test - Quiz - Report 	<ul style="list-style-type: none"> - Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments 	RU. 1,2,3 RP. 1,2,3,4,5

		- Business Law and Ethics				
(3)	CLO-2: (PLO-6.3, 6.4, 6.5) Students are able to understand, explain the steps in starting a business	Starting a business : - Analyze the business environment - Analyzing Business Opportunities	- Field observation - Discussion - Discovery Learning	- Oral test - Quiz - Observation report	- Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments	RU. 1,2,3 RP.,3,4,5,6, 7,8,9
(4)	CLO-3: (PLO-6.3, 6.4, 6.5) Students are able to understand how to determine business ideas and ideas and analyze types of businesses	- Determine business ideas and ideas - Analyze the type of business - product or service	- Field observation - Discussion - Discovery Learning	- Oral test - Quiz - Observation report	- Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments	RU. 1,2,3 RP. 1,2,3,4,5,6, 7,8,9
(5)	CLO-3: (PLO-6.3, 6.4, 6.5) Students are able to compile a business plan according to the business being run	- Business Plan Systematics - Business Profile - Market share - Strategy (Technology and information) - Production of Goods and Services - Marketing - Competition and Risk Analysis - Financial aspect	- Discussion - Problem based learning	- Oral test - Quiz - Assignment of the Draft Business Plan	- Assignment Paper Assessment Sheet - Assessment quiz - Business Plan Assessment Instruments	RU. 1,2,3 RP. 1,2,3,4,5,6, 7,8,9
(6)	CLO-4: (PLO-6.3, 6.4, 6.5) Students are able to present a Business Plan	- Business plan presentation techniques - Business Plan Presentation	- Discussion - Discovery learning - Project base learning	- Presentation Assessment	- Presentation Assessment Rubric	RU. 1,2,3 RP. 1,2,3,4,5,6, 7,8,9
(7)	CLO-5: (PLO-6.3, 6.4, 6.5)	- Business plan presentation	- Discussion	- Presentation	- Presentation	RU.

	Students are able to present and revise business plans	- Revision and improvement of business plans	- Discovery learning - Project Base Learning	Assessment - Business Plan Proposal	Assessment Rubric - Business Plan Proposal Assessment Instrument	1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9
(8)	CLO-6: (PLO-6.3, 6.4, 6.5) Students understand the opportunities and challenges of entrepreneurship in the IT era and take a role with technology as a means of competition and business development	- Entrepreneurial Opportunities and Challenges in the Information Technology era - e-Commerce, Social Media and Mobile Apps - IT era business competition and development	- Discussion - Discovery learning - Project Base Learning	- Oral test - Quiz - Observation report on e-commerce and mobile apps	- Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments	RU. 1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9
(9)	MIDTERM EXAM (UTS)					
(10)	CLO-7: (PLO-6.3, 6.4, 6.5) Students understand and implement the concepts and principles of social entrepreneurship as part of their responsibility to build the community's economy	- Concepts and Principles of Social Entrepreneurship - Social entrepreneurship as a responsibility in building the community's economy	- Discussion - Discovery learning - Project Base Learning	- Oral test - Quiz - Observation reports on social entrepreneurs such as Garbage Banks and so on.	- Assignment Paper Assessment Sheet - Assessment quiz - Field Observation Report Assessment Instruments	RU. 1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9
(11,12)	CLO-7: (PLO-6.3, 6.4, 6.5) Students are able to put a business plan into a real business	- Entrepreneurial practice	- Field Practices	- Entrepreneurial process assessment - Entrepreneurial activity videos	- Entrepreneurial process assessment instrument - Instrumental Video Assessment of entrepreneurial activities	RU. 1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9

(13,14)	CLO-8: (PLO-6.3, 6.4, 6.5) Students are able to compile reports on entrepreneurial practice and present them	<ul style="list-style-type: none"> - Entrepreneurial Practice Report - Entrepreneurial Practice Report Presentation 	<ul style="list-style-type: none"> - Discussion - Case study 	<ul style="list-style-type: none"> - Entrepreneurial Practice Report 	<ul style="list-style-type: none"> - Entrepreneurial Practice Report Assessment Instrument 	RU. 1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9	
(15)	CLO-9: (PLO-6.3, 6.4, 6.5) Students are able to reflect and review the results of business practices that have been carried out	<ul style="list-style-type: none"> - Reflection and review of business practices - Completion and Development of the Business Plan 	<ul style="list-style-type: none"> - Case study 	<ul style="list-style-type: none"> - Reviewer Entrepreneurship practices - Business Plan Development Assessment 	<ul style="list-style-type: none"> - The instrument reviews entrepreneurial practices - Business Plan Development Assessment 	RU. 1,2,3,4,5 RP. 1,2,3,4,5,6, 7,8,9	
(16)	Final exams (UAS)	PORTFOLIO (Business Plan, Entrepreneurial Practice Activities and Entrepreneurial Practice Reports)			Portfolio Assessment Instruments		

The linkage between CLO and PLO and assessment methods

MSN1.62 .4007	Assessment	Point (%)	PLO-1			PLO-2			PLO-3				PLO-4			PLO-5			PLO-6				
			1	2	3	1	2	3	1	2	3	4	1	2	3	1	2	3	1	2	3	4	5
CLO-1	SA.1	10																		V	V		
CLO-1	SA.2.3	20																		V	V		
CLO-2	Mid-Test 1	5																		V	V		
CLO-2	Mid-Test 2	5																		V	V		
CLO-2	Mid-Test 3	5																		V	V		
CLO-3	Mid-Test 4	5																		V	V		
CLO-3	Mid-Test 5	5																		V	V		
CLO-3	Mid-Test 6	5																		V	V		
CLO-3	Mid-Test 7	5																		V	V		
CLO-4	Final Test-1	5																		V	V		
CLO-4	Final Test-2	5																		V	V		
CLO-4	Final Test-3	5																		V	V		

CLO-5	Final Test-4	5																	V	V		
CLO-5	Final Test-5	5																	V	V		
Presence		10																	V	V		
TOTAL		100																				

Assessment Component

- 1. Student activities and assignments : 40%
- 2. Mid Test : 20%
- 3. Final Test : 30%
- 4. Attendances : 10%

Scoring/Grading level description

	Excellent	Good	Satisfy	Fail
ability to describe	Able to describe correctly and completely	Able to describe correctly but not complete	Able to describe but less clear and incomplete	Unable to describe
ability to formulate	Able to formulate correctly and completely	Able to formulate correctly but not complete	Able to formulate but less clear and incomplete	Unable to formulate
ability to calculate	Able to calculate correctly and completely	Able to calculate correctly but not complete	Able to calculate but less clear and incomplete	Unable to calculate
ability to analyze	Able to analyze correctly and completely	Able to analyze correctly but not complete	Able to analyze but less clear and incomplete	Unable to analyze

Scoring and grading system

Score	Quality	Quality score	Designation	Score	Quality	Quality score	Designation
85 – 100	A	4.0	Outstanding	55 – 59	C	2.0	Acceptable

80 – 84	A-	3.6	Excellent	50 – 54	C-	1.6	Poor
75 – 79	B+	3.3	Very good	40 – 49	D	1.0	Poor
70 – 74	B	3.0	Good	≤ 39	E	0.0	Fail
65 – 69	B-	2.6	Good	-	T	-	Tertunda
60 – 64	C+	2.3	Acceptable				