

GENERAL EDUCATION, KMITL

COURSE SYLLABUS

Course Code	96642014	Course Title	Innovative and Systematic Thinking				
Total Credits	3-3-0	Semester / Year of Study	1/2025	Section	1 and 2	Date - Time	Thursday 9-12 and 13-16:00
Course Description (English)	Creativity and innovative features of innovatively idea through practical and theoretical methods, motivation, example of innovation in health sciences, conceptual of systematic thinking framework; principle of systematic thinking; pattern of systematic thinking, key phases of innovative and systematic thinking approach, systematic thinking design, and example of exemplary systematic thinkings nationally and international level.						
Course Coordinator							
Course Instructors	Asst. Prof. Apisak Sindhuphak, Ph.D.						
Teaching Assistant (if any)							
Counselling Schedule	By appointment through email: apisak.si@kmitl.ac.th			Teaching Language	☐ Thai ☒ English ☐ Others, please specify.....		
Website or Online Teaching Method (if any)							
Course Learning Outcomes							
By the end of this course, the student will be able to CLO-1. Generating analytical and critical thinking in solving complex problems. CLO-2. Built interpersonal skills as systematic thinking outcome CLO-3. Being able to construct a critical body of argumentative discussion to better resolve good academic communications CLO-4. Be able to express critical and creative systematic societal projects. CLO-5. Simulate mock-up case study references to Entrepreneurship or start-Up.							

General Education Learning Outcome: GE-LO

GE-LO	Value
☒ GE-LO-1 Analytical and Critical Thinking	4
☒ GE-LO-2 Complex Problem Solving	2
☐ GE-LO-3 Creativity	
☒ GE-LO-4 Interpersonal Skills	2
☐ GE-LO-5 Integrity and Perseverance	
☐ GE-LO-6 Active Learning and Learning Strategies	
☐ GE-LO-7 Resilience, Stress Tolerance and Flexibility	
☐ GE-LO-8 Leadership and Social Influence	
☒ GE-LO-9 Communication	3
☒ GE-LO-10 Entrepreneurship and Startup	4
☐ GE-LO-11 Digital Quotient Literacy and Digital Media	
Total Value	<u>15</u>

Teaching Plan and Evaluation Plan

Week	Topic/Sub-topic	Activities	Notes
1	What When Where Why Who and How: Defining current situation, issue, and idea for Innovative and systematic Thinking	Lecture with slide presentation: group activities for defining critical current issues.	A prep level with in-class discussion and sharing possible Idea
2	Learning about self: Theory and Visual collection of the daily mundane activities	Lecture with slide presentation: introduce ORAD through group activities	Assignment#1 introducing Journal creating short description
3	Learning about Self to Others: Conceptual Strategies and theories of KMITL lifestyle	Lecture with slide and Campus-Walk as 1 st hand experience of the space and social area	Assignment #2 constructing Journal creating contextual writing
4	Learning about Self to Others to Community: Visual collection of global societal design services	Lecture with slide and magazine or academic journal exercise in group	

Week	Topic/Sub-topic	Activities	Notes
5	Creative ways: What is KMITL Lifestyle	Lecture with slide and Campus-Walk as 1 st hand experience of learning and educational activities	
6	Systematic Thinking Idea of ORAD: Observation, Record, Analyze, and Demonstration	Slide Lecture and simulated assignment "a Walk Home and Back Again"	Assignment #3 Expanding Journal with initial Photos/ Drawings
7	Current Media Sample: A journey of Visual and Sounds	Slide Lecture with Films Clips and Individual discussion to Define the CV	Assignment #4 Expanding Journal serving as personal CV Innovative Package
8	Current Research Sample: A journey of Visual and Sounds	Slide Lecture: Individual Discussion and Defining CV	Preparing for CV Innovative Package
9	midterm	Digital instruction package available	Submitting CV Innovative Package
10	Global Issues to KMITL through SDGs	Slide Lecture	Presenting CV Innovative Package
11	SDGs for KMITL Academic Contexts and Philosophy	Slide Lecture: Gather Personal CV innovative Package	Amalgamation of Innovative Package
12	SDGs for KMITL Academic Lifestyle	Slide Lecture : Combining personal CV Innovative Package to Group CV Innovative Package	Assignment#5 Debuting Final Concept: Introductions Inspiration References Method
13	SDGs for KMITL: Infrastructure	Slide Lecture	Final Concept 1
14	SDGs for KMITL: Social Innovation	Slide Lecture	Final Concept 2
15	KMITL LIFESTYLE model for 2030	Group Discussion and presentation	Final Presentation

Evaluation Plan

Assessment Activities	Value	Score	Week of Evaluation	Notes
1 Assignment 1-4	4		2,3,6,and 7	
2 Group/Class discussion	2		1,2,3,4,5,6	
3 CV Innovative Package	2		9,10	
4 Class Presentation	3		3,4,5,7,8,11	
5 Assignment 5 Final Project	4		12 and 15	
Total	15	60		

Evaluation criteria

☒ Group-based								
☐ Standard-based								
Grade	A	B+	B	C+	C	D+	D	F
Score (100 points)	57-60	49-56.9	41-48.9	34-40.9	27-33.9	21-26.9	15-20.9	0-14.9
☐ Satisfactory/Unsatisfactory (S/U)								
Grade	S				U			
Score (60 points)	30-60				0-29.9			

Scoring criteria according to Assessment Plan

Assessment Activities	Learning Outcome	Value	Level			
			4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
Assignment 1-4	Analytical	4	Complete all 4 assignments	Complete 3 assignments	Complete at least 2	Complete 1 assignment
Group class/ discussion	Complex Prob. Solving	2	Ability to arrange and design 3-5 thinking business ideas or conceptual models for KMITL	Ability to arrange and design 1-2 thinking business ideas or	Ability to arrange and design 1 thinking business ideas or conceptual	Ability to arrange and design pre -thinking business ideas or idea
CV Innovative Package	Interpersonal Skill	2	Ability to arrange and design Personal CV Innovative Package with all 4	Ability to arrange and design Personal CV Innovative	Ability to arrange and design Personal CV Innovative	Ability to arrange and design Personal CV Innovative
Class Presentation	Communication	3	Ability to discuss and critically present concept idea in class with all 4 assignments connecting to 2	Ability to discuss and critically present concept idea in class with	Ability to discuss and critically present concept idea in class with at	Ability to discuss and critically present concept idea in class with 1
Assignment 5 (Final Project)	Entrepreneurship and Startup	4	Complete Final Project based on Design with SDGs and Group CV Innovative Package -Reflecting Model for	Complete Final Project based on Design with SDGs and Group CV Innovative Package -	Complete Final Project based on Design Group CV Innovative Package -Reflecting Model for	Complete Final Project for general KMITL issue