GENERAL EDUCATION, KMITL

COURSE SYLLABUS

Course Code	96642017	Course Title	INNOVATION UI	NBOXED			
Total Credits	3 (3-0-6)	Semester /		Section		Date-	
		Year of Study				Time	
Course Description	Study import	ance and necess	sity of innovation	n; analysis	of important o	concepts,	theories, and
(English)	principles cor	ncerning a devel	opment of inno	vation; use	fulness of inn	ovation to	all levels of
	development	, and study posi	tive and negativ	e factors o	n the develop	oment of	innovation, with
	an adaptation	n or change in pe	erspective to acl	hieve innov	vative mindse	t, principle	es on analysis,
	synthesis, inte	egration, and for	mation of innov	ation, and	innovations fr	om variet	y of applications
	of knowledge	to various issue	es and situations				
Course Coordinator							
Course Instructors	Dr. Panisa Art	hachinda					
Teaching Assistant							
(if any)							
Counselling			Teac	hing	☐ Thai 🗵	English	
Schedule			Lang	uage	Others, p	lease spe	cify
Website or Online							
Teaching Method							
(if any)							

Course Learning Outcome

- 1. To introduce students to the basic concepts of innovation and innovation management
- 2. To study fundamental business & management models used in innovative organizations
- 3. To understand the business environment, strategic planning and policy developments
- 4. To introduce students to real life case studies and stories about successful innovation leaders who perform in the industry with innovative products and services.
- 5. To explain students the development of innovative products and viability studies.
- 6. To improve students' self-management & empowerment skills.

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

Teaching Plan and Evaluation Plan

Week	Topic/Sub-topic	Activities	Notes
1	Course introduction	Lecture, discussion, and activities	
2	Concept and theory of innovation	Lecture, discussion, and activities	
3	Creativity and innovation	Lecture, discussion, and group activities	
4	Mindset for innovation 1	Lecture, discussion, and activities	
5	Mindset for innovation 2	Lecture, discussion, and activities	
6	Innovation process: SEARCH	Lecture, discussion, and group activities	
7	Innovation process: SELECT	Lecture, discussion, and group activities	
8	Innovation process: IMPLEMENT	Lecture, discussion, experiment, and	
		outdoor activities	
9	Innovation process: CAPTURE	Lecture, discussion, and activities	
10	Selling your idea	Lecture, discussion, and activities	
11	Change management	Lecture, discussion, and activities	
12	Future of innovation technology in the	Lecture from guest speaker, discussion,	[Guest speaker
	industry	and activities	from Japanese
			Tech company]
13	Project finalization	Discussion and activities.	
14	Project presentation	Presentation and discussion	
15	Final exam	Exam	

Evaluation Plan

Assessment Activities	Value	Score	Week of	Notes
			Evaluation	
1. Attendance and	1	4	Whole semester	Students who are absent more than three times
punctuality				without submitting a valid excuse will receive a
				failing grade (F) for the course
2. Workshop and class	6	24	1-13	In-class activities must be submitted during the
activities				class session. Late submissions will result in a
				reduced score, and failure to submit will result
				in a score of 0
3. Individual assignment	2	8	14	Individual assignment must be submitted in the
				system. Late submissions will result in a reduced
				score, and failure to submit will result in a score
				of 0
4. Final project	4	16	14	Group presentation is held in week 14
5. Final exam	2	8	15	Final exam is held in week 15. Failure to attend
				the final exam will result in a failing grade for
				this module
Total	15	60		

Evaluation criteria

☐ Group-based										
Grade	А	B+	В	C+	С	D+	D	F		
Score (60 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/Unsatisfact	tory (S/U)									
Grade S U										
Score (60 points)		30-	-60			0-2	29.9			

Scoring criteria according to Assessment Plan

Assessment Activities	Learning	Value	Level					
Assessment Activities	Outcomes	value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)		
1. Attendance and punctuality	GE-LO-8	1	Attend class punctually at	Attend class punctually	Attend class punctually	Attend class punctually		
			least 80% of the time	at least 70% of the	at least 60% of the	less than 50% of the		
				time	time	time		
2. Workshop and class activities, such as	GE-LO-3	1	Students demonstrate an	Students demonstrate	Students demonstrate	The student is unable		
- Unleash your inner innovator			ability to generate	an ability to generate	an ability to generate	to demonstrate skills		
- Business model canvas			innovative ideas and adapt	innovative ideas and	innovative ideas and	according to the scoring		
- Innovation auditing			existing concepts to find	adapt existing concepts	adapt existing concepts	criteria in the range of		
- The unusual use and etc.			diverse solutions. They	to find diverse	to find diverse	2-4.		
			effectively expand on their	solutions. While they	solutions. However,			
			ideas, presenting them	can develop new	slowly or cannot keep			
			clearly and	concepts, their	up with some			
			comprehensively across all	expansion of ideas may	limitations.			
			relevant aspects	lack clarity or				
				completeness in some				
				areas				
	GE-LO-4	1	Students demonstrate	Students show	Students exhibit basic	The student is unable		
			interpersonal skills by	moderate interpersonal	interpersonal skills, but	to demonstrate skills		
			effectively cooperating and	skills, cooperating and	their cooperation and	according to the scoring		
			interacting with others.	interacting with others	interaction with others	criteria in the range of		
			They adapt to changes	but may struggle with	are limited. They have	2-4.		
			seamlessly and foster	adapting to changes	difficulty adapting to			
			mutual understanding,	and respond to team	changes and often fail			
			building positive	effectively.	to establish mutual			
			relationships and behavior		understanding, resulting			

A A -sti-iti-	Learning	Malina		Leve	l	
Assessment Activities	Outcomes	Value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
					in weaker relationships	
					and behavior.	
	GE-LO-5	1	Students demonstrate a	Students demonstrate	Students exhibit basic	The student is unable
			commitment to integrity by	a commitment to	integrity, occasionally	to demonstrate skills
			respecting class regulations,	integrity by respecting	respecting class	according to the scoring
			valuing others, and	class regulations,	regulations and others.	criteria in the range of
			exhibiting self-respect. They	valuing others, and	However, they do not	2-4.
			consistently follow up their	exhibiting self-respect.	show commitment to	
			assigned work and actively	They consistently	their assigned work and	
			monitor their progress	follow up their assigned	rarely monitor their	
				work and actively	progress	
				monitor their progress.		
				They commit to their		
				work but may not		
				consistently follow up		
				on progress		
	GE-LO-7	1	Students demonstrate	Students demonstrate	Students demonstrate	The student is unable
			resilience by objectively	resilience by	resilience by	to demonstrate skills
			assessing problems and	objectively assessing	objectively assessing	according to the scoring
			comparing them with	problems and	problems and	criteria in the range of
			surrounding situations.	comparing them with	comparing them with	2-4.
			They effectively analyze	surrounding situations.	surrounding situations.	
			cause-and-effect	While they can analyze	However, they have	
			relationships, thoughtfully	cause-and-effect	difficulty analyzing	
			reconsider solutions, and	relationships, their	cause-and-effect	
				solutions may lack	relationships and often	

Accessed to the Acetic delication	Learning	Value		Leve	l	
Assessment Activities	Outcomes	value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
			leverage their strengths to	thorough consideration,	do not leverage their	
			adapt to various challenges	and they may not fully	strengths to adapt to	
				utilize their strengths in	challenges	
				different situations		
	GE-LO-9	2	Students effectively	Students effectively	Students demonstrate	The student is unable
			capture the core issues of	capture the core issues	basic communication	to demonstrate skills
			the messages and select	of the messages and	skills, but their choice	according to the scoring
			appropriate tools and	select appropriate tools	of tools is sometimes	criteria in the range of
			channels for	and channels for	appropriate. Their	2-4.
			communication. They	communication. Even	messages lack clarity	
			convey their messages	though their supporting	and strong supporting	
			clearly and directly,	reasons are clear, their	reasons, leading to	
			providing strong supporting	attempt to address	some	
			reasons, and are adept at	misunderstandings	misunderstandings.	
			resolving any	among listeners is		
			misunderstandings from	limited		
			the listeners			
3. Individual assignment: Innovative idea	GE-LO-1	1	Students demonstrate an	Students demonstrate	Students demonstrate	The student is unable
that change the world			ability to identify the	an ability to identify	an ability to identify	to demonstrate skills
			importance of content in	the importance of	the importance of	according to the scoring
			relation to the course	content in relation to	content in relation to	criteria in the range of
			and its impact. They can	the course and its	the course and its	2-4.
			effectively recognize	impact. While they	impact. However, they	
			relationships between	can identify	struggle to consistently	
			different concepts and	relationships	identify relationships	
			draw well-supported	between concepts,	between concepts, and	

A	Learning	Malina		Leve	el	
Assessment Activities	Outcomes	Value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
			conclusions from data to	their conclusions	their conclusions drawn	
			explain their ideas	from data are	from data are often	
				somewhat less	weak or insufficient to	
				robust and may lack	fully support their ideas	
				depth in supporting		
				their ideas		
	GE-LO-3	1	Students demonstrate an	Students demonstrate	Students demonstrate	The student is unable
			ability to generate	an ability to generate	an ability to generate	to demonstrate skills
			innovative ideas and	innovative ideas and	innovative ideas and	according to the scoring
			adapt existing concepts	adapt existing	adapt existing	criteria in the range of
			to find diverse solutions.	concepts to find	concepts to find	2-4.
			They effectively expand	diverse solutions.	diverse solutions.	
			on their ideas, presenting	While they can	However, slowly or	
			them clearly and	develop new	cannot keep up with	
			comprehensively across	concepts, their	some limitations.	
			all relevant aspects	expansion of ideas		
				may lack clarity or		
				completeness in		
				some areas		
4. Final project: Innovation for life	GE-LO-3	1	Student demonstrates an	Student demonstrates	Student demonstrates	The student is unable
			ability to generate	an ability to generate	an ability to generate	to demonstrate skills
			innovative ideas and	innovative ideas and	innovative ideas and	according to the scoring
			adapt existing concepts	adapt existing	adapt existing	criteria in the range of
			to find diverse solutions.	concepts to find	concepts to find	2-4.
			They effectively expand	diverse solutions.	diverse solutions.	
			on their ideas, presenting	While they can	However, slowly or	

A	Learning	Malina		Leve	l	
Assessment Activities	Outcomes	Value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
			them clearly and	develop new	cannot keep up with	
			comprehensively across	concepts, their	some limitations.	
			all relevant aspects	expansion of ideas		
				may lack clarity or		
				completeness in		
				some areas		
	GE-LO-8	1	Students demonstrate	Students demonstrate	Students exhibit basic	The student is unable
			leadership skills by	leadership skills by	leadership skills but	to demonstrate skills
			effectively collaborating	effectively	often have difficulty	according to the scoring
			within the team and	collaborating within	collaborating	criteria in the range of
			fostering positive	the team and	effectively with the	2-4.
			relationships. They	fostering positive	team. Their	
			motivate team members,	relationships. They	motivation for team	
			take responsibility for	can motivate some	members is limited,	
			their actions, and honor	team members and	and they may	
			the roles and	communicate	struggle to take	
			responsibilities of their	changes, but may not	responsibility for their	
			coworkers	consistently take	actions, often	
				responsibility or fully	neglecting the roles	
				honor the roles of	of their coworkers.	
				others		
	GE-LO-10	1	Students effectively apply	Students can apply	Students can apply	The student is unable
			their knowledge to	their knowledge to	their knowledge to	to demonstrate skills
			create innovative	create innovative	create innovative	according to the scoring
			solutions, demonstrating	solutions,	solutions but struggle	criteria in the range of
			a strong understanding of	demonstrating a	to apply their	2-4.

A	Learning	\/-l		Leve	l	
Assessment Activities	Outcomes	Value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
			business risks. They set	strong understanding	knowledge	
			clear goals, prepare	of business risks.	effectively. Also, their	
			comprehensive plans,	They set goals and	analysis of financial	
			and thoroughly analyze	prepare plans, but	issues and ethical	
			financial issues and other	their financial analysis	considerations is	
			ethical considerations	and consideration of	incomplete	
				ethical issues may		
				lack depth in some		
				areas		
	GE-LO-11	1	Students demonstrate	Students demonstrate	Students demonstrate	The student is unable
			strong proficiency in	strong proficiency in	proficiency in using	to demonstrate skills
			using digital technology	using digital	digital technology to	according to the scoring
			to produce high-quality	technology to	produce digital	criteria in the range of
			digital media. They	produce high-quality	media. They can use	2-4.
			effectively utilize digital	digital media. They	digital tools to	
			tools to present their	can use digital tools	present ideas but	
			ideas, create business	to present ideas and	lack of awareness	
			opportunities, foster	understand related	regarding online-	
			collaboration. They	laws, but their work is	related laws.	
			understand online-	still limited because		
			related laws and can	of limitation in time		
			manage time to produce	and production		
			digital media effectively	management		
5. Final exam	GE-LO-1	1	Students demonstrate an	Students demonstrate	Students demonstrate	The student is unable
			ability to identify the	an ability to identify	an ability to identify	to demonstrate skills
			importance of content in	the importance of	the importance of	according to the scoring

Accessed to the control of the contr	Learning	Value		Leve	el	
Assessment Activities	Outcomes	value	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
			relation to the course	content in relation to	content in relation to	criteria in the range of
			and its impact. They can	the course and its	the course and its	2-4.
			effectively recognize	impact. While they	impact. However, they	
			relationships between	can identify some	struggle to consistently	
			different concepts and	relationships	identify relationships	
			draw well-supported	between concepts,	between concepts, and	
			conclusions from data to	their conclusions	their conclusions drawn	
			explain their ideas	from data are	from data are often	
				somewhat less	weak or insufficient to	
				robust and may lack	fully support their ideas	
				depth in supporting		
				their ideas		
	GE-LO-2	1	Students exhibit a strong	Students exhibit a	Students exhibit an	The student is unable
			ability to identify and	strong ability to	ability to identify and	to demonstrate skills
			address complex	identify and address	address complex	according to the scoring
			problems presented in	complex problems	problems presented	criteria in the range of
			the exam. They	presented in the	in the exam. They	2-4.
			demonstrate a clear	exam. While they	struggle to think	
			understanding of the	understand the	systematically and	
			situation and think	situation, their	may provide	
			systematically, generating	problem-solving may	solutions that are	
			creative solutions with a	lack systematic	overly simplistic,	
			flexible approach	thinking, and their	lacking creativity or	
				solutions are not	flexibility in their	
				effective or flexible	approach	