

Program: I&TM (Innovation and Technology Management)

1. Learning goals and rubrics

Learning Goal	Learning Objectives	Where to measure?	How to Measure?
L1. Critical, Innovative and Strategic Thinking - Our graduates will be able to apply critical, innovative, and strategic thinking in a dynamic business environment.	L11. Our students will have the ability to identify and analyze complex problems from multiple perspectives	Case study presentation	Case study evaluation
	L12. Our students will be able to apply innovative and strategic solutions to organizational problems	Case study presentation	Case study evaluation
L2. Communication Skills - Our graduates will acquire the communication skills needed to function effectively	L21. Our students will communicate effectively in written document and/or oral presentations.	Course embedded assignments	Course-embedded assignment evaluation
	L22. Our students will diagnose and communicate management problems.	Course embedded projects	Project report evaluation
L3. Organizational Leadership - Our graduates will be competent and effective leaders	L31. Our students will be able to work effectively in a team environment	Course embedded subject	Course-embedded survey
	L32. Our students will understand ethical and social issues in organizations	Course embedded assignments	Course-embedded assignment evaluation
L4. Comprehensive Knowledge in Business and Technology - Our graduates will acquire knowledge related to business innovation and technology management	L41. Our students will be able to develop technology strategy to aid a wide range of corporate management decisions	Course embedded projects	Project report evaluation
	L42. Our students recognize the importance of technology in business innovation	Course embedded assignments	Course-embedded assignment evaluation

2. Rubric to assess achievements of learning objectives

L1. Critical, Innovative and Strategic Thinking: Our graduates will be able to apply critical, innovative, and strategic thinking in a dynamic business environment.			
L11. Our students will have the ability to identify and analyze complex problems from multiple perspectives.			
Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Identification of current business strategy	· Elements missing and inaccurate conclusions drawn.	· Current business strategy correctly identified.	· All elements of the current business strategy identified correctly and gaps noted between current performance and management expectation.
2. Identification of alternatives	· Alternatives not identified or poorly defined.	· Only a single visible strategy is identified.	· Multiple strategies are evaluated and the best strategy is recommended.
3. Development of a business strategy	· Elements are missing or poorly identified.	· Some elements of the model are present but not all.	· All the elements are presented.

L1. Critical, Innovative and Strategic Thinking: Our graduates will be able to apply critical, innovative, and strategic thinking in a dynamic business environment.			
L12. Our students will be able to apply innovative and strategic solutions to organizational problems.			
Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Formulation of the problem statement	<ul style="list-style-type: none"> The problem statement is unclear or unfocused. 	<ul style="list-style-type: none"> The problem statement is focused on its cause, not just symptoms. 	<ul style="list-style-type: none"> The problem statement is focused on its cause, and it is not simply a disguised solution.
2. Problem analysis	<ul style="list-style-type: none"> The problem analysis is superficial and does not reflect the complexity of the problem. 	<ul style="list-style-type: none"> The problem analysis reflects a comprehensive understanding of the problem. 	<ul style="list-style-type: none"> The problem analysis clearly specifies underlying cause-and-effect relationships of the problem.
3. Generation of alternatives	<ul style="list-style-type: none"> Generates only one obvious alternative to the problem that provide only piecemeal solutions to the problem. 	<ul style="list-style-type: none"> Generates more than one obvious alternative solution to the problem. 	<ul style="list-style-type: none"> The alternatives generated represent innovative and comprehensive solutions to the problems identified.

<p>4. Evaluation of alternatives</p>	<ul style="list-style-type: none"> · Clear criteria by which the alternative solutions will be evaluated are not explicitly stated. · There is no or little criteria related to problem analysis. · Both short-term and long-term pros and cons of each alternative relative to the criteria are not considered. 	<ul style="list-style-type: none"> · The criteria by which alternatives will be evaluated are explicitly stated. · The criteria are directly tied to the problem analysis and clearly communicate criteria for a “good solution”. · Only the short-term pros and cons of each alternative relative to the criteria are considered; long-term considerations of alternatives are missing. 	<ul style="list-style-type: none"> · The criteria by which alternatives will be evaluated are explicitly stated. · The criteria are directly tied to the problem analysis and clearly communicate criteria for a “good solution”. · Both short-term and long-term pros and cons of each alternative relative to the criteria are explicitly stated and evaluated.
<p>5. Recommendation and implementation</p>	<ul style="list-style-type: none"> · The selected alternative is only vaguely related to the causes of the problem and a strong case has not been built for its appropriateness. · There is no mention of a plan to gain acceptance. · Progress toward solution is not monitored. 	<ul style="list-style-type: none"> · The selected alternative is stated explicitly; however, no rationale is provided. · A plan for gaining acceptance is stated but detailed steps to be taken are unclear. · Progress toward solution is monitored but is not systematic. 	<ul style="list-style-type: none"> · The selected alternative is stated explicitly with clear rationale for the chosen solution. · A plan to gain the acceptance of those affected is specified with detailed plans for negotiation and persuasion. · A system for monitoring progress toward the solution is established.

L2. Communication skills: Our graduates will acquire the communication skills needed to function effectively.

L21. Our students will communicate effectively in written document and/or oral presentations.

Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Logic & Organization	<ul style="list-style-type: none"> · Introduction and/or conclusion are unclear. · Does not use a sequence of appropriate materials to guide reader through the paper. · Draws illogical conclusions. 	<ul style="list-style-type: none"> · Develops ideas through effective use of paragraphs, transitions, opening and concluding statements. · Generally well structured to suggest connection between sub-topics. · Draws somewhat logical conclusions. 	<ul style="list-style-type: none"> · Maintains clear focus throughout the communication. · Uses appropriate evidence to build the paper's conclusions and presents analysis using a sequence of ideas, clarity of flow between sub-topics and continuous voice or point of view. · Draws logical, strong and sound conclusions.
2. Grammar and sentence structure	<ul style="list-style-type: none"> · Frequently uses inappropriate grammar and incomplete or poorly structured sentences which interfere with comprehension. 	<ul style="list-style-type: none"> · Generally complies with standard English and grammar and sentence usage. 	<ul style="list-style-type: none"> · Sophisticated and error-free use of language, using varied sentence structures, phrasing and cadence.
3. Spelling and word choice	<ul style="list-style-type: none"> · Many unsupported statements are offered. 	<ul style="list-style-type: none"> · Most statements are supported. 	<ul style="list-style-type: none"> · Statements show thoughtful reasoning and exploration of alternatives.

	<ul style="list-style-type: none"> · Uses flawed or unclear reasoning. 	<ul style="list-style-type: none"> · Ideas are explained with examples and written with sufficient explanation. 	<ul style="list-style-type: none"> · Uses existing, supported ideas to develop well-formed, readable output.
4. Voice and body language	<ul style="list-style-type: none"> · Cannot be heard well due to volume, mumbling, speed, or rote delivery. · Turns away from the audience or uses distracting gestures. 	<ul style="list-style-type: none"> · Clear delivery with good volume and pace in speech. · Little use of gestures. 	<ul style="list-style-type: none"> · Exemplary delivery using voice and gestures. · Uses vocal and physical resources to aid in communicating topic.
5. Use of slides to enhance communications	<ul style="list-style-type: none"> · Frequent spelling errors and/or too many slides for allotted time. · Poor use of graphics. 	<ul style="list-style-type: none"> · Readable slides containing reasonable amount of material per slide. · Good use of graphics or illustrations. 	<ul style="list-style-type: none"> · Well-written and designed, used to support verbal content presentation. · Excellent use of graphics and illustrations.
6. Contents	<ul style="list-style-type: none"> · Does not satisfy assignment requirements and misuses theory or selects poor examples. 	<ul style="list-style-type: none"> · Provides good analysis of subject, satisfying intent of assignment and demonstrating knowledge. 	<ul style="list-style-type: none"> · Shows evidence of extensive research and highly competent analyses to reach conclusions and recommendations.

L2. Communication skills: Our graduates will acquire the communication skills needed to function effectively.

L22. Our students will diagnose and communicate management problems.

Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Problem identification	<ul style="list-style-type: none"> · Fails to identify a problem statement or factors in relevant context. 	<ul style="list-style-type: none"> · Demonstrates the ability to construct a problem statement with evidence of most factors in relevant context, but problem statement is superficial. 	<ul style="list-style-type: none"> · Demonstrates the ability to construct a clear and insightful problem statement with evidence of all factors in relevant context.
2. Problem analysis	<ul style="list-style-type: none"> · Fails to analyze the problem within specific context. 	<ul style="list-style-type: none"> · Analysis of the problem is clear and demonstrates a sound understanding in relevant concepts and theories. 	<ul style="list-style-type: none"> · Analysis of the problem is excellent and demonstrate mastery of relevant concepts and theories.
3. Solution proposal and evaluation	<ul style="list-style-type: none"> · Proposes a solution that is vague. · Fails to evaluate solutions. 	<ul style="list-style-type: none"> · Proposes one or more solutions that address the specific problem. · Evaluation of solutions is supported by some subject knowledge and theories but it is brief and lacks depth. 	<ul style="list-style-type: none"> · Proposes one or more solutions that are creative and feasible. · Evaluation of solutions is fully supported by substantial subject knowledge and theories, and logical evidence.

L3. Organizational leadership: Our graduates will be competent and effective leaders.

L31. Our students will be able to work effectively in a team environment.

Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Committed and Collaborative problem solving	<ul style="list-style-type: none"> Reluctant to engage in team task. Reluctant to collaborate with teammates. 	<ul style="list-style-type: none"> Somewhat reluctant to proactively engage in team task and discussions. Collaborate with teammates when there is an immediate need. 	<ul style="list-style-type: none"> Proactively participate and lead team discussion and tasks. Collaborate with teammates consistently in a way that improves everyone's efficiency.

<p>2. Feedback seeking and Self-development</p>	<ul style="list-style-type: none"> · Demonstrates little or no capacity to engage in meaningful reflection. · Resists feedback and fails to engage in reflective process. · Does not convey personal values or objectives. 	<ul style="list-style-type: none"> · Uses leadership constructs and principles to articulate key strengths and areas for development. · Solicits and processes feedback and input constructively. Conveys personal values and objectives clearly. · Conveys personal values and objectives clearly. 	<ul style="list-style-type: none"> · Demonstrates exceptional personal insight as evidenced by the capacity to see relationships between various strengths and areas for development. · Demonstrates exceptional personal insight as evidenced by the capacity to apply insights to personal improvement. · Demonstrates exceptional personal insight as evidenced by the capacity to convey links between skills, personal values, and objectives.
<p>3. Communication</p>	<ul style="list-style-type: none"> · Explains one's own views impatiently prior to seeking an understanding of other team members' views. 	<ul style="list-style-type: none"> · Tries to understand the team members' points of view so that the members' messages are better understood. 	<ul style="list-style-type: none"> · Patiently seeks to understand other members' views before explaining one's own views.
<p>4. Team planning and task coordination</p>	<ul style="list-style-type: none"> · Fails to help clarify responsibilities and goes off track from the task. 	<ul style="list-style-type: none"> · Assists the team in clarifying roles, responsibilities, goals, and milestones and stays on track. 	<ul style="list-style-type: none"> · Aids the team in attaining an agreement on the team objective and actively suggests ways so that the team can achieve its objective.

L3. Organizational leadership: Our graduates will be competent and effective leaders.

L32. Our students will understand ethical and social issues in organizations.

Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Identification of ethical dilemmas	<ul style="list-style-type: none"> · Fails to be aware of ethical dilemmas to be discussed and decisions to be made in organizations. 	<ul style="list-style-type: none"> · Is aware of particular ethical dilemmas at management level of organizations based on the analysis of reasons behind them 	<ul style="list-style-type: none"> · Demonstrates a comprehensive and deep understanding of particular ethical dilemmas at management level of organizations.
2. Understanding of relevant social and ethical considerations	<ul style="list-style-type: none"> · Shows no awareness of the relations between ethical practice and ethical theory. · Poor explanations. 	<ul style="list-style-type: none"> · Understands the relations between ethical practice and ethical theory. · Essential analysis and explanations. 	<ul style="list-style-type: none"> · Understands the relations between ethical practice and ethical theory comprehensively with a profound analysis. · Excellent analysis with deep awareness of the possibility of the ethical dilemma in management practice.
3. Social and ethical consideration when recommending and proposing solutions to the stated problems	<ul style="list-style-type: none"> · Fails to make any proposals with any reasonable considerations of social and ethical issues relevant to organizational management. 	<ul style="list-style-type: none"> · Makes an appropriate proposal with reasonable considerations of social and ethical issues relevant to organizational management. 	<ul style="list-style-type: none"> · Makes an appropriate and detailed proposal with comprehensive and reasonable considerations of social and ethical issues relevant to organizational management.

L4. Comprehensive knowledge in Business and Technology: Our graduates will acquire knowledge related to business innovation and technology management.			
L41. Our students will be able to develop technology strategy to aid a wide range of corporate management decisions.			
Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1. Articulate technology-business link	<ul style="list-style-type: none"> No clear link between technology strategy and business strategy. 	<ul style="list-style-type: none"> Technology strategy is aligned with business strategy. 	<ul style="list-style-type: none"> The recommended technology strategy is aligned with business strategy and provides a clear opportunity for competitive advantage.
2. Identification of technology' strategic implications	<ul style="list-style-type: none"> Technology components are not identified or incorrectly assigned. 	<ul style="list-style-type: none"> Technology components are correctly identified. 	<ul style="list-style-type: none"> Components are correctly identified and connections are made to the broader strategic elements related to technology ownership and intellectual property.
3. Development of viable technology strategies	<ul style="list-style-type: none"> Strategies are weak or not viable. 	<ul style="list-style-type: none"> There is at least one viable strategy presented. 	<ul style="list-style-type: none"> Multiple alternatives are evaluated and best alternative is presented.
4. Comprehensive technology strategy	<ul style="list-style-type: none"> Elements are missing or applied incorrectly. 	<ul style="list-style-type: none"> All elements are present. 	<ul style="list-style-type: none"> All elements are present and innovatively incorporated to enhance viability.
5. Presentation	<ul style="list-style-type: none"> Arguments presented are disjointed with no connection between technology strategy and business objectives. 	<ul style="list-style-type: none"> Connections are drawn between technology strategy and business objectives. 	<ul style="list-style-type: none"> Connections are drawn between technology strategy and business objectives with insight that maximizes business impact.

L4. Comprehensive knowledge in Business and Technology: Our graduates will acquire knowledge related to business innovation and technology management.			
L42. Our students recognize the importance of technology in business innovation.			
Traits	Performance Level		
	1 (Fails to meet expectations)	2 (Meets expectations)	3 (Exceeds expectations)
1.Strategic and integrative thinking	<ul style="list-style-type: none"> Has little understanding of principles of technology with focus remaining on technology alone. 	<ul style="list-style-type: none"> Average understanding of the principles of technology and how it impacts the organization and overall company profitability. 	<ul style="list-style-type: none"> Demonstrates solid understanding of technology and its ramifications throughout the organization.
2. Development of aligned technology-business strategy	<ul style="list-style-type: none"> Has little understanding of the relationships between technology and business. Struggles to connect concepts in a comprehensive statement. 	<ul style="list-style-type: none"> Demonstrates an understanding of the relationships between technology and business. Able to explain how these concepts combine to create a comprehensive plan. 	<ul style="list-style-type: none"> Demonstrates an excellent understanding of the relationships between technology and the business and utilizes this understanding to align business with technology. Strategy goes beyond commonplace thinking and demonstrates insight into the future of the firm.
3. Creative and innovative thinking	<ul style="list-style-type: none"> Thinking is incremental. 	<ul style="list-style-type: none"> Some elements of the analysis process show radical change. 	<ul style="list-style-type: none"> The recommended strategies present a clear opportunity for competitive advantage.

4. Articulation of technology-business relationship	· Relationship between technology and business strategy is not clear.	· Clear link between technology and business strategy is shown.	· The alignment of technology and business through the strategy will provide competitive advantage.
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