Stevens Institute of Technology

School of Business

**AACSB
ASSURANCE OF LEARNING PLAN**

**Graduate Management Program:**

**Master of Science in Technology Management**

**&**

**Executive Masters in Business Administration**

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# 1. INTRODUCTION AND OVERVIEW OF MSTM/EMBA DEGREES

The [**MS in Technology Management (MSTM)**](https://www.stevens.edu/school-business/masters-programs/technology-management) and [**Executive MBA (EMBA)**](https://www.stevens.edu/school-business/masters-programs/mba/executive-mba) degrees recognize that executive-level courses must offer a strong technology perspective to be relevant in a fast-changing world. Our courses in marketing, finance, strategy, and operations emphasize the use of analytical tools that are changing how decisions are made in these disciplines. Faculty teach students to approach problems with entrepreneur-like flexibility and use emerging technologies to become an innovator who brings greater sophistication and efficiency to the enterprise. The cohort format of this program fosters teamwork and collaborative learning.

# 2. OVERVIEW OF MSTM/EMBA ASSURANCE OF LEARNING PLAN

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|  |  |  |
| --- | --- | --- |
|  | **Credits** | **Courses** |
| **MSTM** | 30 | 10 |
|  | **Credits** | **Courses** |
| **EMBA** | 48 | 16 |

**School of Business Vision**

To be a leading business school widely recognized for superior technology-focused and student-centric educational programs and research.

**MSTM/EMBA program Vision**

To provide an outstanding graduate business education that is distinguished by its focus on technology, its real-world application, and complex problem solving.

**MSTM/EMBA Competency goals**

The Competency goals for the MSTM/EMBA program are listed in Table 1.

**Table 1: MSTM/EMBA Competency goals**

|  |
| --- |
| **MSTM/EMBA Program Competency goals** |
| MSTM/EMBA - 1. Students can communicate effectively in written and oral presentations. |
| MSTM/EMBA - 2. Students can interact effectively in teams.  |
| MSTM/EMBA - 3. Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. |
| MSTM/EMBA - 4. Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses. |

# 3. MSTM/EMBA ASSURANCE OF LEARNING ASSESSMENT PLAN

**Table 2: MSTM/EMBA Assurance of Learning Assessment Plan - Goals 1 through 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **COMPETENCY GOAL** | **Where Measured** | **When measured?** | **Sampling** | **Measuring & Validation Plan**  | **Criterion** |
| MSTM/EMBA - 1. Students can communicate effectively in written and oral presentations. | Embedded in design assignment in all required courses. ***EMT 635:***  ***Managerial Judgment & Decision Making*** is the course of assessment for written communication and ***EMT 696: Human-Centered Design Thinking*** is the course of assessment for the oral presentation. | Every semester | All students in course | Students develop and present original case studies of major decisions in class, which incorporate some of the major issues covered in the course, and demonstrate their understanding of the principles of judgment and decision-making. | Instructor's grade of individual performance is monitored at various stages in the program.  |
| MSTM/EMBA - 2. Students can interact effectively in teams.  | EMT 740 Team Leadership Development in Technical Organizations  | Every semester | All students in course | U’ Inc. or Skills Analysis paper: Using a corporation as a metaphor, students are required to prepare a detailed analysis of their personal “mission, vision, assets, and liabilities”, when it comes to managing and leading collaboratively.  | Students are assessed on their ability to use various assessments and course constructs effectively; their capacity to recognize relationships across assessments and constructs, apply what they have learned to their own interests, abilities and organizations, in terms of diagnosis. The assignment also requires them to articulate personal development objectives that are logically derived from their analysis and personal development planning. |
| MSTM/EMBA - 3. Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. | EMT 714 Technology Strategy | Every semester | All students in course | Final Group Business Plan Presentation: During the last 1-2 sessions of the semester, larger groups will present to the class a business plan for a new product/service and request for funding/support from an investor group (the rest of the class). This 1-hour presentation will be evaluated to assess the student's and team’s knowledge of the use of technology for strategic advantage using the format outlined in Appendix A5: Large Group Final Project Business Plan Presentation. If issues of performance arise, the professor meets with the individual and/or the team to discuss the issue and determine if any adjustment to the student in questions grade is needed. | Student teams are provided a “Posters EMT 714” document which outlines minimum presentation requirements and optional/creative additions they can provide |
| MSTM/EMBA - 4. Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses.. | EMT 752 Corporate Entrepreneurship | Every semester | All students in course | Student teams develop a new project with an accompanying business plan for one of the member companies. The objective is to get initial funding for the project by the conclusion of the course. | The first two traits will be determined by a Harvard Business simulation on change and managing disruptive innovation. The third trait will be determined on a grade the students receive on the business model for their project by the faculty.Students are assessed not only on the content of their proposals but also on whether they succeed in having their proposals implemented (see objective 2 trait 1). A high percentage of these proposals are actually funded. |

# 4. MSTM/EMBA CURRICULUM ALIGNMENT MAP

**Table 3: MSTM/EMBA Curriculum Alignment Map Fall 2023**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MSTM/EMBA Courses** | MSTM/EMBA - 1. Students can communicate effectively in written and oral presentations. | MSTM/EMBA - 2. Students can interact effectively in teams.  | MSTM/EMBA - 3. Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. | MSTM/EMBA - 4. Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses. |
| **EMT 740** Team Leadership Development in Technological Organizations | Students’ give two in-class team presentations, complete a comprehensive individual paper mod semester and complete a briefer 3-5 page individual paper at the end of the semester. | Students complete comprehensive Skills Analysis papers based upon course assessments and concepts. These papers include personal development plans. Team assignments include establishment of working agreements, summary of individual differences amongst team members and an exploration of team dysfunctions. A larger team assignment has them pick a topic related to team leadership and compare their respective organizations. The deliverable is a team presentation. |  |   |
| **EMT 606** Economics for Managers | Students submit video presentations where they identify current events articles relevant to what we learned in class and produce a video presentation explaining what the article discusses and it relationship to the curriculum. This exercise provides students with an opportunity to work on their communication skills. | Students work in teams to solve problems as part of every class. Bridge exercises are assigned after each concept is taught and students are broken up into teams. Members of each team work together to work out the exercises. This builds up their teamwork skills and teaches them to interact with and work with others. |  | Students submit video presentations where they identify current events articles relevant to what we learned in class and produce a video presentation explaining what the article discusses and it relationship to the curriculum. This exercise forces students to synthesize what they learn in class and find an application of concepts in real life. This is an exercise that builds up their analytical skills. |
| **EMT 642** Marketing Strategy | Each student team makes a formal presentation at the end of the course on the results of the simulation. | Students work together in teams, competing against each other in a marketing simulation. Team effectiveness has an impact on the overall decision-making process. |  | Launching a new business or sustaining an existing one requires an effective marketing strategy and tactics to competitively position the firm's products and services within identified market segments. This course teaches students the principles of marketing, which are applied through computer simulation to develop and implement marketing strategy and tactics in competition against other student teams. |
| **EMT 624** Financial and Managerial Accounting | Each student team makes a formal presentation at the end of the course on the results of the simulation. | Students work together in teams, competing against each other in a marketing simulation. Team effectiveness has an impact on the overall decision-making process. | Students engage in a computer simulation game where the products deal with some advanced technology (i.e., electronic sensors). | Students must analyze the data generated from each round of the marketing simulation and determine the appropriate inputs to the subsequent round. |
| **FIN 623** Financial Management |  |  |  | Students are taught the fundamentals of finance and are provided with essential tools for financial decision making. decisions. Topics include: how financial managers function; liquidity vs. profitability; risk vs. return; bond and stock valuation; capital budgeting.” |
| **EMT 714** Technology Strategy | The course incorporates a graded written assignment and team presentations. The Final project consists of an oral team presentation and comprehensive written report. | 60% of the deliverables for the course are team deliverables, which require students to work effectively in teams to accomplish the overall course objectives. | Students develop and present an integrated technology strategy, aligned with business strategy for a company of their own choosing. | Students develop technology road maps and identify technology projects that sustain existing businesses, and generate new business opportunities. |
| **EMT 696** Design Thinking | Everyone in the class is responsible for writing two reports. One on evaluating the world through designer’s "eyes" and the second methods used to understand users. Every week students in each of the teams need to give an oral presentation on the progress of their project. | The course project is done in a self-formed team. |  | Students learn a design thinking methodology which will enable them to develop and solve wicked problems. |
| **EMT 752** Corporate Entrepreneurship | Each individual in the class is responsible for writing a report, which evaluates best practices in the front end for their company and two case studies. The final project, which is done by a team, is presented in the final class to outside group of executives who grade the content and quality of the presentation. | Students work in small teams of 2-3 people to accomplish the overall course objectives. |  | Student teams develop a new project with an accompanying business plan for one of the member companies. The objective is to get initial funding for the project by the conclusion of the course. |
| **EMT 657 Operations Management** | The course contains several written assignments that provide a formal assessment of students' understanding on various aspects of operations management and operations strategy. |  | The overall coursework aims to equip the students with the ability to utilize modern analytical techniques and computational methods for managing real-life systems that manufacture goods and/or provide services. Readings are also provided to familiarize the students with the ways in which an array of modern companies use ICT technology to address challenging operations management problems. | Through multiple homework assignments, a mid-term exam and a comprehensive final exam, the students will be required to formulate a wide array of operational management problems and to solve those problems using modern quantitative techniques, such as statistics and probability theory, forecasting methods, queuing theory, optimization and linear programming, simulation and others. |
| **EMT 635 Managerial Judgment and Decision-Making** | Students develop and present original case studies of major decisions in class, which incorporate some of the major issues covered in the course, and demonstrate their understanding of the principles of judgment and decision-making. | Students both analyze and practice decision-making using realistic case studies and role-playing exercises. The cases and exercises allow students to demonstrate understanding of influences on judgment and decision-making and how effective decisions are made by individuals and groups. |  | Students apply models to make decisions under uncertainty and crisis; Students; Students analyze decisions from a statistical and rational model perspective; learn how bounded rationality and satisficing affect managerial decisions; practice applying principles of negotiation. |
| **EMT 695 Leading Creative Collaboration** | Student groups design and implement five key learning methods and are evaluated by their peers on how well they communicate the goals and practices they design. Participation grades are based on each student's verbal contributions to the learning of others. Students write a research application paper evaluated for clarity. Students conduct field trip interviews and present key insights to the class via presentations, videos, or other media, and these communication attempts are evaluated for clarity, useful content, and engagement. Students are expected to contribute to group learning through the use of social media, which requires succinct, responsive, respectful, and thought-provoking written communication. | Students develop themselves, their teams, and the "business" (our class organization) by applying tools and techniques for expanding creative and collaborative contributions to personal and group goals. For example, each student is on a team chartered with designing and implementing a key course learning method. The research application paper requires students to choose a problem or possibility that can be advanced through applying the research on personal and group creativity, conflict resolution, and collaboration practices. Students analyze teams within and outside the class and develop new leadership skills to increase the effectiveness of these groups. Teams interview leaders in the field trip exercise and extract implications for their own leadership. Students practice giving and receiving developmental feedback. The readings and course content challenge students to be creative in how they inspire, motivate, and lead teams. | Students consider the ways building more creative, collaborative organizational cultures and workspaces can enable tighter alignment between mission, technology strategies, and results. |  |
| **EMT 638 Corporate Finance** | Students prepare and present a written and oral presentation of a final case project covering M&A which covers many of the concepts covered in class. Students work in teams and co-present. Students write memos in style and substance suitable for presentation to CFO and his/her investment committee. |  | Students learn how to price and issue equity and debt. Students measure the effect of leverage upon the corporate balance sheet and test how it increases shareholder value or limits management's ability to act. |  |

**5. Ethics Thread Fall 2022**

The MSTM/EMBA program also takes great effort to address the importance of Business Ethics. The following table shows the courses where ethics is explicitly addressed.

|  |  |
| --- | --- |
| **EMT 624 Financial Management for Technical Organizations**  | The ethics v the legality v the regulatory rules of accounting are discussed in numerous instances in the class.  A video describing the accounting fraud is shown followed by an extended discussion of the ethical issues involved. |
| **EMT 740 Team Leadership Development**  | The course module on power & influence stresses the moral and ethical implications of social processes such as obedience to authority. |
| **EMT 714 Technology Strategy**  | Students learn the ethical issues involved in competitive intelligence gathering, and protection of intellectual property. |
| **EMT 715****Strategic Planning** | One session of a class is dedicated to the discussion of ethical dimensions of business under the rubric of corporate social responsibility. It discusses managerial responsibility to the shareholders as well as to the society. |
| **EMT 695 Leading Creative Collaboration**  | Students practice communication skills that enable high transparency, non-coercive conflict resolution and group decision processes, and consider what can happen to creativity, innovation, and ethical decision making in organizations where these skills are not employed. |
| **EMT 635 Managerial Judgment & Decision Making**  | The course covers fairness in decision making, drawing the distinctions among distributive, procedural, and interactional justice (using compensation decisions as an example).  Second, it includes discussion on bounded ethicality, which is the idea that many unethical decisions can arise due to biases that are outside of our conscious awareness.  To reinforce this concept, students complete an implicit association test, which reveals biases that are the ‘thumbprint of our culture’ despite our explicit desire to avoid such biases. |

**6. Global Thread – Fall 2023**

**Following is a chart that maps our courses to global coverage using the legend below.**

**Legend**

 – Entirely Global Content

 – Significant parts are global

 – Some global content

|  |  |  |
| --- | --- | --- |
| **Course** | **Legend** | **Notes** |
| **EMT 695 Leading Creative Collaboration** |  | Students explore the benefits of diverse team composition for problem solving and innovation, especially in rapidly changing, high ambiguity situations often created by large-scale business context changes such as globalization. They explore the leader's role in creating collaborative spaces that span geography, time, and cultural differences. |
| **EMT 740 Team Leadership Development** |  | The self-awareness module includes material on cross-cultural value distinctions. A conflict management case introduces students to cross-cultural dimensions of interpersonal conflict. |
| **EMT 714 Technology Strategy** |  | Students are made aware of the need to monitor the external environment (of which technology is a major component) within a global context. Location of R&D facilities is an important strategic consideration in addressing regional customer needs. |
| **EMT 606 Economics** |  | The course examines United States fiscal and monetary policies including their effects on the international markets. |

# 7. MSTM/EMBA CORE COMPETENCIES, OBJECTIVES AND RUBRICS

**MSTM/EMBA COMPETENCY GOAL #1**

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| --- |
| Competency goal 1: Communicate effectively in writing and oral presentations. |
| **Competency goal 1 has 2 Objectives, as follows:**  |
| **Objective 1:** | ***Students will be able to write effectively.*** |
| **Traits** |   |
| Trait 1: | Logical flow |
| Trait 2: | Grammar and sentence structure |
| Trait 3: | Spelling and word choice |
| Trait 4: | Development of ideas |
|  |   |
| **Objective 2:** | ***Students will be able to deliver presentations effectively.*** |
| **Traits** |   |
| Trait 1: | Organization and logic |
| Trait 2: | Voice quality |
| Trait 3: | Physical presence |
| Trait 4: | Use of slides to enhance communications |
| Trait 5: | Transitions/ Time Management/ Q/A |
|  |  |

**RUBRIC – MSTM/EMBA Goal 1**

|  |
| --- |
| **MSTM/EMBA – 1****Communicate effectively in writing and oral presentations**    |
| **Objective 1:** *Students will be able to write effectively* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **5** | **10** |  |
| Trait 1: | Logical flow | Unclear introduction or conclusion. Does not use a sequence of material to lead reader through the paper. Draws illogical conclusions | Develops ideas through effective use of paragraphs, transitions, opening and concluding statements. Generally well structured to suggest connection between sub-topics. | Maintains clear focus, uses structure to build the paper's conclusions. Presents analysis using sequence of ideas, clarity of flow and continuous voice or point of view. |   |
| Trait 2: | Grammar and sentence structure | Frequently uses inappropriate grammar and incomplete or poorly structured sentences which interfere with comprehension. | Generally complies with standard English and grammar and sentence usage. | Sophisticated use of English language, using varied sentence structured, phrasing and cadence. Grammar is error-free. |   |
| Trait 3: | Spelling and word choice | Frequent misspellings. Poor or limited choice of words for expression ideas. | Has proofread or checked spelling, and uses vocabulary correctly. Minor errors. | Demonstrates good use of words to support written expression of topic. Spelling is error-free. |   |
| Trait 4: | Development of ideas | Many unsupported statements offered. Uses flawed or unclear reasoning. | Most statements supported, ideas explained with examples and written with sufficient explanation. | Shows thoughtful reasoning and explores alternatives. Uses existing supported ideas to develop well-formed, readable output. |   |
| **Criterion: Does not meet expectations: 0 – 14; Meets: 15-30; Exceeds: 31-40**   |

|  |
| --- |
| **MSTM/EMBA - 1****Communicate effectively in both written and oral presentations**  |
| **Objective 2:** *Students will be able to deliver presentations effectively* |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **5** | **10** |  |
| Trait 1 | Organization and logic | Fails to introduce topic; no evidence of or poor logical flow of topic | Prepares listeners for sequence and flow of topic. Loses place occasionally but flow and structure are still clear. | Engages listeners with overview, guides listeners through connections between sections, uses time to good effect. |   |
| Trait 2 | Voice quality | Cannot be heard or understood well due to volume, mumbling, speed, monotone delivery, and/or heavily accented English.  | Clear delivery with well-modulated voice. Displays some confidence and enthusiasm, but may also contain flatter periods or sound overly rehearsed. | Exemplary delivery, with a voice that sounds fully engaged, conveys enthusiasm and confidence, and relates to the audience well.  |   |
| Trait 3 | Physical presence | Turns away from audience or uses distracting gestures, such as pacing or tugging clothing. Speaker seems stiff, awkward or uncomfortable. Little eye contact. | Speaker is relaxed in front of the room and keeps distracting movements and gestures to a minimum. Generally faces audience and makes eye contact. | Speaker’s body language is superb and fully engages the room. Strong, consistent eye contact to the entire audience. Uses confident gestures to underscore key verbal points. |   |
| Trait 4 | Use of slides to enhance communications | Misspelled, too busy, too much text, too many slides for allotted time, and/or poor use of graphics like charts.  | Slides are readable, containing a reasonable amount of material per slide. Good use of graphics or illustrations. | Slides are well written/designed, engaging to the audience, and used as support to verbal content presentation. |   |
| Trait 5 | Transitions, time management, Q&A. | Transitions are awkward or non-existent. Speakers go over time limits. Answers are disorganized or non-responsive. | Transitions are smooth. Speakers generally stay within time limits. Speakers respond to questions well and provide sufficient response. | Transitions are professional and very smooth. Speakers respond convincingly and address all aspects of question. |   |
|   |   |   |   |   |   |
| **Criterion:** | **Does not meet expectations: 0 – 19; Meets: 20-35 ; Exceeds: 36-50**   | **Total Score** |   |

**MSTM/EMBA COMPETENCY GOAL #2 – Objectives and Traits**

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| Competency goal 2: Students can interact effectively in teams. |
| **Objective 1:** | *Adopt a personal development mindset / be able to systematically assess one’s own team leadership skills and abilities* |
| **Traits** |   |
| Trait 1: | Accurately applies leadership theory and individual difference models to characterize his/her/their current state of leadership development |
| Trait 2: | Self-awareness -Effectively uses all self-awareness dimensions-introspection, interaction and expansion to describe personal leadership qualities and aspirations |
| Trait 3: | Personal development planning – Uses self-management and self-regulation principles to articulate personal development objectives |

# RUBRIC

**Objective 1:** *Adopt a personal development mindset / be able to systematically assess one’s own team leadership skills and abilities*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Trait** | **Poor** | **Good** | **Excellent** |
|   | **Value** | **0** | **5** | **10** |
| Trait 1: | Knowledge of individual difference factors impacting team leadership effectiveness | Unable to define and describe relevant personality traits, attitudes and behaviors | Understands key constructs and their implications for team leadership, Can interpret individual difference assessments correctly and consider implications. Can support interpretations based upon actual examples and experiences | Demonstrates exceptional analytical skills as evidenced by the capacity to both differentiate and integrate amongst constructs. Uses thoughtful and detailed examples to diagnose effectiveness and propose plans for improvement |
| Trait 2: | Self-awareness – The capacity for interaction awareness, introspection and expansion (feedback and self-disclosure) | Demonstrates little or no capacity to engage in meaningful reflection; Resists feedback and fails to engage in reflective process | Can use leadership constructs and principles to articulate key strengths and development areas; Constructively solicits and processes feedback and input, Can clearly convey personal values and objectives | Demonstrates exceptional personal insight as evidenced by the capacity to: a) see relationships between various strengths and areas for development; b) convey linkages between skills and personal values and objectives c) apply insights to personal improvement goals |
| Trait 3: | Personal development planning based upon principles of self-management and self-regulation | Fails to establish relevant development goals; Development plans lack sufficient clarity, are too broad to be actionable, and or are not related to team leadership skills  | Establishes actionable development objectives based upon an understanding of strengths, growth areas and broader personal ambitions | Demonstrates in depth understanding of behavioral improvement principles and strategies as evidenced by the creation of detailed and complex personal development plans |

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| Competency goal 3: Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. |
| **Objective 1:** *Students are able to perform a strategic analysis process on a technology-based business and develop a comprehensive business strategy for the ensuing 5 years* |
| **Traits** |   |
| Trait 1: | Able to analyze a firm to determine its current business strategy  |
| Trait 2: | Demonstrate an ability to think strategically by considering alternatives to leverage strengths and overcome weaknesses |
| Trait 3: | Able to develop a viable business strategy for the overall firm that contains all elements of the strategic planning model |
| Trait 4: | Appropriate consideration given to implementation and control considerations |
| **Objective 2:** *Students are able to develop a technology strategy for a technology-based company that is aligned with business strategy and provides the firm with a technology-based competitive advantage* |
| Trait 1: | Able to articulate the way in which technology enables business strategy to provide the firm with a sustainable competitive advantage  |
| Trait 2: | Able to discern the elements of a firm's technology strategy from analysis of its products and services |
| Trait 3: | Viable alternative technology strategies are considered in building a technology strategy for the next 5 years |
| Trait 4: | Technology strategic plan contains all of the key elements of a comprehensive technology strategy  |
|  Trait 5: | Presents a strong convincing argument for top management action |

**MSTM/EMBA COMPETENCY GOAL # 3: Objectives and Traits**

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| --- |
| **MSTM/EMBA - 3****Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy.** |
| **Objective 1** | *Students are able to complete a strategic analysis process on a technology-based business and develop a comprehensive business strategy for the ensuing 5 years.*  |   |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **5** | **10** |  |
| Trait 1: | Able to analyze a firm to determine its 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 |   |
| Trait 2: | Demonstrate an ability to think strategically by considering alternatives to leverage strengths and overcome weaknesses. | Alternatives not identified or poorly defined | At least one visible strategy identified that is based on SWOT. | Multiple strategies evaluated and best strategy recommended. |   |
| Trait 3: | Able to develop a viable business strategy for the overall firm that contains all elements of the strategic planning model.  | Elements are missing or poorly identified | Some elements of the model are present but not all. | All the elements are presented |   |
| Trait 4: | Appropriate consideration given to implementation and control. | No consideration to implementation and control | Some elements of implementation and control are presented | An integrated plan with corresponding implementation and control plans is presented |   |
| **Criterion: Does not meet expectations: 0 – 14; Meets: 15 - 30; Exceeds: 31 - 40** |

**RUBRIC (1)– MSTM/EMBA Goal 3**

# RUBRIC (2) – MSTM/EMBA Goal 3 *(continued)*

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| **MSTM/EMBA - 3****Students will develop, articulate, and put into practice technology strategies aligned with corporate mission, and business strategy.**  |
| **Objective 2** | *Students are able to develop a technology strategy for a technology-based company that is aligned with business strategy and provides the firm with a technology-based competitive advantage.*  |
|   | **Trait** | **Poor** | **Good** | **Excellent** | **Score** |
|   | **Value** | **0** | **5** | **10** |  |
| Trait 1: | Able to articulate the way in which technology enables business strategy to provide the firm with a sustainable competitive advantage  | No clear linkage between technology strategy and business strategy | Technology strategy is aligned with business strategy | The recommended strategy is aligned with business strategy and provides a clear opportunity for competitive advantage |   |
| Trait 2: | Able to discern the elements of a firm's technology strategy from analysis of its products and services with connection made strategic implications of technology ownership and intellectual property.  | Technology components not identified or incorrectly assigned. | Technology components correctly identified | Components correctly identified and connection made to the broader strategic elements related to technology ownership and intellectual property. |   |
| Trait 3: | Viable alternative technology strategies are considered in building a technology strategy for the next 5 years. | Strategies are weak or not viable | There is at least one viable strategy presented | Multiple alternatives are evaluated and best alternative is presented |   |
| Trait 4: | Technology strategic plan contains all key elements of a comprehensive tech. strategy  | Elements are missing or applied incorrectly | All elements are present | All elements are present and innovatively incorporated to enhance viability. |   |
| Trait 5: | Presents a strong convincing argument for top management action |  Arguments presented are disjointed with no connection between technology strategy and business objectives | Connection drawn between technology strategy and business objectives | Connections drawn between technology strategy and business objectives with insight that maximizes business impact. |   |
| **Criterion: Does not meet expectations: 0 – 20; Meets: 21 - 34; Exceeds: 35 - 50** |

**MSTM/EMBA COMPETENCY GOAL # 4: Objectives and Traits**

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| Competency goal 4: Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses. |

|  |  |
| --- | --- |
| **Objective 1 (Direct Measurement):** | *Being able understand the strategy, issues, processes and constraints associated with developing a sustaining and disruptive innovation in a large corporation.* |
| **Traits** |   |
| Trait 1: | Understand how change happens and the importance of social capital associated with new innovations in large corporations.  |
| Trait 2: | Understand of how to simultaneously of develop and implementing both a sustaining and disruptive innovations.  |
| Trait 3: | Understand the ability to develop a business model for a new project. |

|  |  |
| --- | --- |
| **Objective 2:****(Indirect Measurement)** | *Be able to develop a business model for a new product or service and understand the associated political and organizational constraints which are associated with gaining social and financial capital.* |
| **Traits** |   |
| Trait 1: | Be able to understand and gain support of the organization for a new product or service. |
| Trait 2: | Be able to present a compelling business model innovation to a group of executives at the conclusion of the course.  |

# RUBRIC – MSTM/EMBA Goal 4

**Objective 1:***Being able understand the strategy, issues, processes and constraints associated with developing a sustaining and disruptive innovation in a large corporation.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Trait** | **Poor** | **Good** | **Excellent** |
|   | **Value** | **0** | **5** | **10** |
| Trait 1: | Understand how change happens and the importance of social capital associated with new innovations in large corporations.  | Achieving a critical mass of less than 14 out of 20 change agents in a Harvard Business change management simulation. | Being able to achieve a critical mass of between 15 and 17 change agents in a Harvard Business change management simulation. | Being able to achieve a critical mass of 18 out of 20 change agents in a Harvard Business change management simulation. .  |
| Trait 2: | Understand of how to simultaneously of developing and implementing both a sustaining and disruptive innovation strategy. | Being unable to produce a profit while simultaneously supporting a sustaining and disruptive innovation as indicated in a Harvard Business school simulation. | Being able to produce a profit while simultaneously supporting a sustaining and disruptive innovation as indicated in a Harvard Business school simulation. | Being able to produce a significant profit while simultaneously supporting a sustaining and disruptive innovation as indicated in a Harvard Business school simulation.  |
| Trait 3: | Understand the ability to develop a business model for a new project. | Be unable to discuss and explain the business model and MVP for their project. | Being able to discuss and explain most parts of the business model as well as the MVP (minimum viable prototype) for the new project. | Being able to superbly discuss and explain each portion of the business model as well as the MVP (minimum viable prototype) for their new project. |

# RUBRIC (2)– MSTM/EMBA Goal 4

**Objective 2:** *.* *Be able to develop a business model for a new product or service and understand the associated political and organizational constraints which are associated with gaining social and financial capital.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Trait** | **Poor** | **Good** | **Excellent** |
|   | **Value** | **0** | **5** | **10** |
| Trait 1: | Be able to understand and gain support of the organization for a new product or service | Be unable to gain political support for the project or service in a company | Being able to gain support from an executive champion for their project – but not able to gain funding. | Be able to gain funding from the corporation for their project.  |
| Trait 2: | Be able to present a compelling business model innovation to a group of executives at the conclusion of the course.  | Provides a poorly prepared story for their business model innovation.  | Provides an acceptable story for their business model innovation.  | Provides an outstanding, clear and compelling story for their business model innovation.  |
|  |  |  |

**8. RESULTS OF AACSB COMPETENCY GOAL ASSESSMENTS**

The results of the initial competency goal assessments carried out to date are included below.

**Explanation**

Each competency goal has a number of learning objectives and performance on each objective is measured using a rubric that in turn contains a number of desired “traits”. Students are scored individually on each trait.

The grading sheets for each student are used to develop a Summary Results Sheet for each competency goal objective. A selection of these Summaries is included below.

The first table in the Summary Results Sheet for a learning objective and trait gives the counts of students falling in each of the three categories:

- Does not meet expectations
- Meets expectations
- Exceeds expectations

The right-hand column in the table is used to record the average score of the students on each trait. This table provides an indication of the relative performance of students on each trait.

The second table on each sheet provides the counts of students who fall in each of the above three categories for the overall learning objective.

The person doing the assessment provides explanatory comments and recommendations on the bottom of the Results Summary Sheet. The recommendations suggest content or pedagogy changes for the next time the course is given.

**COMPETENCY GOAL #1:***Our students will communicate effectively in written and oral communications.*

**LEARNING OBJECTIVE #1:***Students will be able to write effectively.*

**ASSESSMENT DATE:**

**ASSESSOR:**

**NUMBER OF STUDENTS TESTED:**

|  |  |  |
| --- | --- | --- |
|  | **Number of Students** |  |
| **Competency goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** | **Average Grade** |
| 1: Logical flow |  |  |  |  |
| 2: Grammar & Sentence Structure |  |  |  |  |
| 3: Spelling & word choice |  |  |  |  |
| 4: Development of ideas |  |  |  |  |
| **Average Grade (Out of 10) =** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category***(Based on average score across all traits)* |  |  |  |

**COMMENTS:**

**REMEDIAL ACTIONS:**

**LEARNING OBJECTIVE #2:***Students will be able to deliver presentations effectively.*

**ASSESSMENT DATE:**

**ASSESSOR:**

**NUMBER OF STUDENTS TESTED:**

|  |  |  |
| --- | --- | --- |
|  | **Number of Students** |  |
| **Competency goal Traits** | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** | **Average Grade** |
| 1: Organization & Logic |  |  |  |  |
| 2: Voice Quality |  |  |  |  |
| 3: Physical Presence |  |  |  |  |
| 4: Use of Slides to Enhance Comm |  |  |  |  |
| 5: Transitions, Time Mgt, Q&A |  |  |  |  |
| **Average Grade (Out of 10) =** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not Meet Expectations** | **Meets Expectations** | **Exceeds Expectations** |
| **Total Students by Category***(Based on average score across all traits)* |  |  |  |

**COMMENTS:**

**REMEDIAL ACTIONS:**

**COMPETENCY GOAL #2:**

*Students can interact effectively in teams.*

**LEARNING OBJECTIVE # 1:**

*Adopt a personal development mindset / be able to systematically assess one’s own team leadership skills and abilities*

**ASSESSMENT DATE:**

**ASSESSOR:**

**NO. OF STUDENTS TESTED:**

|  |  |  |
| --- | --- | --- |
|  | **Number of Students** |  |
| **Competency goal Traits** | **Not Meet Expectat-ions** | **Meet Expectat-ions** | **Exceed Expectat-ions** | **Aver.Grade** |
| **1: Knowledge of individual difference factors impacting team leadership effectiveness** |  |  |  |  |
| **2: Self-awareness** |  |  |  |  |
| **3: Personal development planning** |  |  |  |  |
| **Average Max. Grade** |  |

Criterion: Does not meet expectations: 0 – 10; Meets: 11-21; Exceeds:22-30

|  |  |  |  |
| --- | --- | --- | --- |
|   | Not meet Expectations | Meets Expectations | Exceeds Expectations |
| Total Students by Category *(Based on Average score across all traits)* |  |  |  |
| **Students meeting or exceeding expectations:** |  |

**COMMENTS:**

**REMEDIAL ACTIONS:**

**COMPETENCY GOAL # 3**:

*Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy.*

**LEARNING OBJECTIVE # 1**:

*Students will be able to prepare a project detailing a firm's technology strategy.*

ASSESSMENT DATE: ASSESSOR:

NO. OF STUDENTS TESTED& COURSE:

|  |  |  |
| --- | --- | --- |
|  | Number of Students |  |
| Competency goal Traits | Not Meet Expectations | Meet Expectations | Exceed Expectations | **Avg. Grade on Trait** |
| 1: Knowledge of Technology Management theory |  |  |  |  |
| 2: Identification of business strategy |  |  |  |  |
| 3: Generation of technology strategy |  |  |  |  |
| **Average Grade (Maximum 10)** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|   | Not meet Expectations | Meets Expectations | Exceeds Expectations |
| Total Students by Category *(Based on Average score across all traits)* |  |  |  |
| **Students meeting or exceeding expectations:** |  |

**COMMENTS:**

**REMEDIAL ACTIONS:**

**COMPETENCY GOAL #4:**

*Identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models in a large corporation including both sustaining and disruptive businesses.*

**LEARNING OBJECTIVE # 1:**

*Being able understand the strategy, issues, processes and constraints associated with developing a sustaining and a disruptive innovation in a large corporation.*

**ASSESSMENT DATE: ASSESSOR:**

**NO. OF STUDENTS & COURSE:**

|  |  |  |
| --- | --- | --- |
|  | **Number of Students** |  |
| **Competency goal Traits (Assessor Peter Koen)** | **Not Meet Expectations** | **Meet Expectations** | **Exceed Expectations** | **Average Grade** |
| 1. Understand how change happens and the importance of social capital associated with new innovations in large corporations.  |  |  |  |  |
| 2. Understand of how to simultaneously of developing and implementing both a sustaining and disruptive innovation strategy. |  |  |  |  |
| 3. Understand the ability to develop a business model for a new project. |  |  |  |  |
| **Average Grade (Maximum of 10)** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not meet expectations** | **Meet Expectations** | **Exceed Expectations** |
| **Total Students by Category**(Based on Average score across all traits) |  |  |  |
| **Students meeting or exceeding expectations** |  |

Criterion: Does not meet expectations: 0 – 14; Meets: 15 - 25; Exceeds: 26 - 30

**COMMENTS:**

**REMEDIAL ACTION:**

**LEARNING OBJECTIVE # 2:** *Being able to develop a business model for a new product or service and understand the associated political and organizational constraints which are associated with gaining social and financial capital.*

|  |  |  |
| --- | --- | --- |
|  | **Number of Students** |  |
| **Competency goal Traits (Trait 1 to be assessed by corporate champion in students’ company, trait 2 to be assessed by external executives grading the final assignment)** | **Not Meet Expectations** | **Meet Expectations** | **Exceed Expectations** | **Average Grade** |
| 1. Be able to understand and gain support of the organization for a new product or service |  |  |  |  |
| 2. Be able to present a compelling business model innovation to a group of executives at the conclusion of the course.  |  |  |  |  |
| **Average grade (maximum of 10)** |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Not meet expectations** | **Meet Expectations** | **Exceed Expectations** |
| **Total Students by Category**(Based on Average score across all traits) |  |  |  |
| **Students meet or exceed expectations** |  |

Criterion: Does not meet expectations: 0 –9; Meets: 10 - 15; Exceeds: 16 - 20

**COMMENTS:**

**REMEDIAL ACTIONS:**

9. Competencies

|  |  |
| --- | --- |
| Competency goal  | Competencies |
| MSTM/EMBA – 1. Students can communicate effectively in writing and oral presentations. |  The specific communication **competencies** that are related to this competency goal fall into two broad categories – those that apply to written communication and those that apply to oral communication. Written communication competencies include: logic flow and organization, grammar & sentence structure, syntax, idea development Verbal communication competencies include: clear articulation of ideas, presentation capability and confidence, appropriate use of visual aides, transitions, time management, and ability to engage the audience. |
| MSTM/EMBA – 2. Students can interact effectively in teams. | There are **specific competencies** that are needed in teamwork that this goal will address. The skills that are targeted are task management skills, and relationship management skills. **Task management** skills include: clarifying roles and responsibilities of others; suggesting new approaches to solving problems; defining task priorities for work sessions and or projects. **Relationship management** skills include: working towards solutions and compromises that are acceptable to all involved; reinforcing the contributions of others; encouraging ideas and opinions even when they differ from his/her own. |
| MSTM/EMBA – 3. Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. | are specific competencies students will gain to create business requirements, understand customer needs, and determine how new technologies and or business structures and methods can be researched, selected, and integrated in support of the proposed company’s new capabilities.Competencies associated with this competency goal include: the skills that are targeted are communication, ability to see the big picture, problem solving ability, analytic skills, leadership ability.Competencies associated with this competency goal include…1. Awareness of current and emerging technologies: To develop the habit of reviewing multiple information sources to be cognizant of changes in technologies, business models and methods while being aware of the social, political and economic opportunities/challenges of deploying new technologies within an existing company as well as for starting a new product/services.
2. Consideration of technology evolution and timing of when to utilize emerging technologies: To be aware of the major areas of emerging technologies and appreciate the evolutionary development which usual precedes the actual incorporation of such technologies in the deployment of products and services in the marketplace. To understand the relationship between various technologies and the challenges of integrating technologies.
3. To provide an opportunity assessment for a technology enhanced products/services

To review the possible competitive advantages of combining technology with business strategy: To be able to review the competitive landscape for the proposed business strategy. |
| MSTM/EMBA – 4. Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses. |  |

10. Indirect Measurements

|  |  |
| --- | --- |
| Competency goal  | Indirect Measurements |
| MSTM/EMBA – 1. Students can communicate effectively in writing and oral presentations. | We will conduct a survey of recent graduates to obtain their perspective on the extent to which their studies helped them develop in relation to MSTM/EMBA Competency goals. For each goal, we will pose three questions focusing on graduates’ knowledge and skills efficacy/confidence and two open ended questions will ask them to describe the ways in which what they learned are relevant to their current work and activities. We anticipate surveying 10-20 graduates. We expect the questions asked to evolve over time. |
| MSTM/EMBA – 2. Students can interact effectively in teams. | Indirect measurements will be taken at periodic intervals. Depending on the measurement chosen, a diagnostic tool will be selected for analysis. One possibility is interviews. The interview will be structured, with representative team members. The structured interview will gather information about the key competencies. The responses will be subjected to a content analysis. Another option for the future is employer/supervisor feedback about the students’ teamwork skills.Additionally, we will conduct a survey of recent graduates to obtain their perspective on the extent to which their studies helped them develop in relation to MSTM/EMBA Competency goals. For each goal, we will pose three questions focusing on graduates’ knowledge and skills efficacy/confidence and two open ended questions will ask them to describe the ways in which what they learned are relevant to their current work and activities. We anticipate surveying 10-20 graduates. We expect the questions asked to evolve over time. |
| MSTM/EMBA – 3. Students will develop, articulate and put into practice technology strategies aligned with corporate mission, and business strategy. | **Survey of supervisors of student interns/coop members/CPT students/ICP participants**: Working with all faculty members supervising these experiential opportunities, survey the supervisors on their strategic thinking and creative identification of application of technologies at the sponsoring organization. Additionally, we will conduct a survey of recent graduates to obtain their perspective on the extent to which their studies helped them develop in relation to MSTM/EMBA Competency goals. For each goal, we will pose three questions focusing on graduates’ knowledge and skills efficacy/confidence and two open ended questions will ask them to describe the ways in which what they learned are relevant to their current work and activities. We anticipate surveying 10-20 graduates. We expect the questions asked to evolve over time. |
| MSTM/EMBA – 4. Students can identify, assess, launch, and lead organizational strategic initiatives in a technology-based environment for the creation of new business models (i.e., corporate entrepreneuring) in a large corporation including both sustaining and disruptive businesses. | The first trait will be measured by an executive champion, required for every project, in the students’ company. The second trait will be measured by executives who are external to the company and evaluate the project as part of the last class.Additionally, we will conduct a survey of recent graduates to obtain their perspective on the extent to which their studies helped them develop in relation to MSTM/EMBA Competency goals. For each goal, we will pose three questions focusing on graduates’ knowledge and skills efficacy/confidence and two open ended questions will ask them to describe the ways in which what they learned are relevant to their current work and activities. We anticipate surveying 10-20 graduates. We expect the questions asked to evolve over time. |

11. Engagement, Innovation, and Impact

# Outlined below are specific curriculum changes, adaptations, and innovations influenced by AOL competency goals:

|  |  |
| --- | --- |
| **1** | Created new practicum course that challenged learners to integrate and apply concepts, tools, and other knowledge learned throughout their program of study. This course put a particular emphasis on developing and applying critical thinking skills. (EMT 810) |
| **2** | Introduced strategic project management course. This course explored why project management has become one of the most important mechanisms for organizations to achieve results. Students examined the twelve knowledge domains as the basis for project management and developed a working knowledge of how projects are determined, initiated, prepared, implemented, and completed. Lastly, this course briefly discussed Project Management Institute® and its certifications including the Project Management Professional (PMP)® and Certified Associates in Project Management (CAPM)®. (EMT 800) |
| **3** | Course adjustments, including: more time for instructor coaching on student projects, additional student presentations exploring ongoing development of projects, and incorporating contemporized case studies. These adjustments were aimed to enhance students’ communication, presentation, and collaboration skills. (EMT 752)  |

# Outlined below are structural changes, adaptations, and innovations influenced by internal and external motivators:

|  |  |
| --- | --- |
| 1 | Developed proposal to reorganize MSTM/EMBA curriculum such that the technology and innovation management courses occur earlier in the program. This was done to emphasize the technology management aspect of the curriculum after taking into consideration a systematic review of other Technology Management degrees.  |