Candidate must satisfy a total of 31 credit hours (CH) with a minimum G.P.A. of 3.00 on a 4.00 scale.

All students must complete 16 credit hours (CH) of the core curriculum.

**CISB 6226 Evaluating Entrepreneurial Opportunity**
Provides students with the knowledge and skills needed to select viable opportunities and evolve them into high-potential concepts and business models. Topics include identifying and evaluating opportunity, evaluating markets, developing a powerful value proposition, creating a sustainable competitive advantage, developing powerful and successful business models, and evolving an insightful sales forecast.

**CISB 6222 Starting a Business**
Identifies, qualifies, quantifies, and validates an entrepreneurial opportunity, with the objective of deriving a repeatable, scalable, and profitable business model. Students learn how to take a validated opportunity and create a marketing plan, a financial projection, and an elevator pitch. Uses business modeling tools to develop and refine the business plan.

**STRA 6224 Entrepreneurial Strategy**
This class integrates a number of approaches while addressing strategic issues facing new and small businesses. In general, we would like to understand enduring factors that influence entrepreneurial and small business management. Topics include business strategy, strategies particular to entrepreneurship, market and industry analysis, and organizing to implement innovative ideas. The course assumes the perspective of the entrepreneur. Material will be a blend of cases and other readings.

**EMIS 7501 Technology Commercialization Studio I (proposed new course)**
Topics essential to the commercialization of new technology and the management of products with high technology content including customer discovery, product definition and requirements, development strategies, manufacturing strategies, sales and marketing, costing and pricing, product planning and capturing the right design win. Pedagogy will include lectures and discussions led by experts in intellectual property, legal aspects of businesses, ethics, financing, fundraising, sales and other vital to the practice of engineering entrepreneurship; case studies; and, an experiential learning project in technology commercialization undertaken across two semesters.

**EMIS 7503 Technology Commercialization Studio II (proposed new course)**
Topics essential to the commercialization of new technology and the management of products with high technology content including customer discovery, product definition and requirements, development strategies, manufacturing strategies, sales and marketing, costing and pricing, product planning and capturing the right design win. Pedagogy will include lectures and discussions led by experts in intellectual property, legal aspects of businesses, ethics, financing, fundraising, sales and other vital to the practice of engineering entrepreneurship; case studies; and, an experiential learning project in technology commercialization undertaken across two semesters.

All students must complete 6 credit hours (CH) from the following.

**CISB 6210 Essential Law for the Entrepreneur**
This course will provide a broad awareness of and skill in coping with critical legal issues encountered by the entrepreneur building a growth oriented business. Students will also develop skills in the practice of minimizing exposure to liability and litigation and in working effectively with attorneys and regulators. Venturing initiation through expansion stage will be addressed. Topics addressed will include: 1) contract law; 2) legal entities; 3) governance; 4) intellectual property; 5) e-law and e-litigation; 6) securities law overview; 7) dispute resolution and litigation management; 8) employment law; and 9) protection of intellectual assets.

**CISB 6211 Enhancing Operational Performance for Entrepreneurial Companies**
This course will address how, by making good operating decisions, an entrepreneur can successfully direct/manage his or her fledgling company into becoming a successful firm capable of withstanding the challenges of an ever changing marketplace. In both lectures and cases emphasis will be placed on practical, real-world approaches to operations. Topics covered include industry and competitor analysis, assessing financial strength, the business model, building the management team, measuring costs, the legal foundation of the business, marketing issues, preparing for the challenges of growth and growth by acquisition.

**CISB 6212 International Entrepreneurship**
This course provides students with an understanding of the complexities faced by entrepreneurs doing business in a global environment and with knowledge which will help them to successfully cope with that environment. The course will focus on and emphasize the perspective of the entrepreneur. The topics covered from an international perspective are: entrepreneurial opportunity identification and evaluation; market analysis and intelligence; joint ventures and partnerships; agents, VAR’s and representatives; regulations, laws and customs; regional and cultural issues; financing foreign ventures; and choice of domestic and international legal entities.

**CISB 6214 Law of Financial Transactions for Entrepreneurs**
In this course, students will learn: what issues determine the proper entity for their businesses (corporation, partnership, LLC); what are the legal and practical issues in funding their businesses in the start-up phase; how VC funding works and how to negotiate with VCs; the mechanics of stock option plans and how to best design them for their businesses; the tax, legal, and business issues that determine the proper structure for mergers and acquisitions; how to read definitive documents and what to look for; and how the IPO process works.

**CISB 6218 Managing the Family-Owned and Closely Held Business**
The course explores the unique challenges and opportunities involved in the management and ownership of family-owned and closely-held enterprises. Key business, personal, and interpersonal issues relevant to the continuity and management of these firms are examined. The course will emphasize family business systems and family dynamics as well as keys to building long-term successful family businesses.

**CISB 6220 Social Media for Entrepreneurs**
Equips students with the social media concepts and tools required to make informed decisions and set the direction for their company. Focuses on helping entrepreneurs build and sustain the successful, integrated, digital-media programs required to compete in the connected economy. Topics include leveraging social media, picking the right channel/platform, building a social plan, determining metrics, tracking strategies, creating a strategic differentiator matrix, and understanding social media law. Students learn how to develop buyer persona for a prototype product and how to develop an online go-to-market strategy for a new product launch.

**CISB 6224 Venture Financing**
This course takes the student through evaluating the opportunity and developing the business concept as well as assessing and acquiring financial resources. The course takes a case approach to understanding the most important financing concepts for the entrepreneur. Including the entrepreneur’s career start-up, expansion, leveraged buyouts, mergers and acquisitions, and other opportunities present situations where proper venture financing can mean the difference between success and failure.

**CISB 6225 Entrepreneurial Exit Strategies**
This course examines one of the key strategies required of any entrepreneurial venture, how the founders and the investors realize the appreciated value of their contributions to the business. The strategies and methodologies for each of the major types of exit transactions are covered in depth in this course. The types of transactions covered are Leveraged Buyouts (LBO’s), the Sale of the business, the use of an Initial Public Offering (IPO), the Recapitalization of the firm and the Liquidation of the business.

**CISB 6228 Corporate Entrepreneurship: Intrapreneuring**
This course will examine in detail the challenges and tradeoffs a corporation faces when trying to implement and manage for corporate entrepreneurship. Key elements for intrapreneurship, success drivers, as well as business frameworks and models will be developed and analyzed in this course. Topics to be discussed include definition of intrapreneurship and comparing and contrasting it with traditional entrepreneurship; the impact of corporate culture, processes, and structures on the rate of innovation and new venture development; international impacts on intrapreneurship, and models for sustaining and adapting corporate entrepreneurship. An M.B.A. graduate who can innovate and grow new ventures within a corporation can add significant value to the company for which he/she works.

**BAEX 6237 Global Explorations in Entrepreneurship**
Economies that encourage and embrace entrepreneurship are able to create wealth, economic growth, and stability for their citizens; however, an entrepreneurial ecosystem must be present. Students research and compare and contrast ecosystem trends and dependencies in different global economies, including access to capital, startup assistance, and education programs. At the conclusion of the course, students propose a new business venture for – and travel to – a host country. Includes exploration of local entrepreneurship hero stories and the entrepreneurship ecosystem within economies around the globe. Prerequisite: Completion of core required courses.

*All students must complete 6 credit hours (CH) from the following.*

**CEE 8326 Sustainable Development**
A land development constructed for sustainability must work within multiple sets of existing regulations, and then go beyond business as usual, to address issues not commonly considered. This course will lead students through the combination of issues
that lead toward sustainability within a project, including financial projections, legal issues and municipal regulations. The concept of a truly sustainable development will be examined and challenged.

**EMIS 8358 Technical Entrepreneurship**
Demonstrates the concepts involved in the management and evolution of rapidly growing technical endeavors. As part of a team, the student participates in active learning by doing, by making mistakes and developing solutions, and by observing mistakes and approaches made by other teams.

**EMIS 7351 Enterprise Fundamentals**
An overview of business fundamentals, spanning the range of all functional areas: management, marketing, operations, accounting, information systems, finance, and legal studies.

**EMIS 7365 Program and Product Management**
Development of principles and practical strategies for managing projects and programs of related projects for achieving broad goals. Topics include: planning, organizing, scheduling, resource allocation, strategies, risk management, quality, communications, tools, and leadership for projects and programs.

**EMIS 7366 Marketing Engineering**
Marketing engineering moves beyond traditional conceptual approaches to embrace the use of analytics, data, information technology, and decision models to help organizations effectively reach customers and make marketing decisions. Designed for technical individuals, the course applies engineering problem-solving approaches and computer tools to solve marketing problems from today’s competitive work environment.

**EMIS 8361 Engineering Economics and Decision Analysis**
Introduction to economic analysis methodology. Topics include engineering economy and cost concepts, interest formulas and equivalence, economic analysis of alternatives, technical rate-of-return analysis, and economic analysis under risk and uncertainty. Credit not allowed for both EMIS 2360 and EMIS 8361. Prerequisite: Knowledge of introductory probability and statistics.

**EMIS 8364 Engineering Management**
How to manage technology and technical functions from a pragmatic point of view. How to keep from becoming technically obsolete as an individual contributor and how to keep the corporation technically astute. This course will look at the management of technology from three distinct viewpoints: 1) the management of technology from both an individual and a corporate perspective, 2) the management of technical functions and projects, and 3) the management of technical professionals within the organization.

*All students must complete one three hour course from any Lyle graduate program, approved by the adviser.*