

# Entrepreneurship and Innovation (ENTR)

## Courses

### ENTR 1201. The Entrepreneurial Universe. (4 Hours)

Introduces students to the world of entrepreneurship. Covers the importance of entrepreneurship, the characteristics of entrepreneurs, and the entrepreneurship process. Describes entrepreneurship in its various forms, including startup growth ventures, entrepreneurship in small and medium enterprises, and microbusinesses.

### ENTR 1990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

### ENTR 2215. Understanding Family Enterprise. (4 Hours)

Covers business, personal, and family issues found in family owned and managed companies, including management of the business, succession planning, entitlement, hiring, nonfamily employees, boards of advisors and directors, compensation, managing conflict, and communications. Designed for individuals who plan to enter into the management of a family business. Focuses on small and midsize firms with annual revenue of \$5 million to \$500 million.

### ENTR 2225. Examining Family Business Dynamics Through Film. (4 Hours)

Examines various television shows and films to critically analyze and evaluate family relationships and family business dynamics. Discusses how these media reflect research and theories related to family businesses and how a "healthy family" helps to ensure a "healthy business." Observes examples of important family psychology concepts like sibling rivalry, entitlement, generational conflict, gender stereotypes, divorce, and spousal conflict. Also covers family business concepts like primogeniture, entitlement, succession, stagnation, wealth management, innovation, and gender discrimination. Emphasizes understanding family businesses as a source and consequence of diversity, using a global lens to showcase the similarities and differences among family firms around the world.

### ENTR 2302. Innovation Through Applied Learning. (4 Hours)

Explores the creative process, the different types of innovation, how innovations are created, and how innovations can be transformed into commercial reality by exploring real-life situations and examples. Offers students an opportunity to obtain the fundamental insight needed to understand the innovation process by experiencing it firsthand.

### ENTR 2303. Marketing Strategies for Startups. (4 Hours)

Designed to help aspiring and serious entrepreneurship students to generate and evaluate robust marketing opportunities that may serve as the foundation for a new venture. Once a new opportunity has been vetted, students then have an opportunity to work on developing an entrepreneurial marketing plan. Covers methods for recognizing, discovering, or creating opportunities and validating those opportunities. One of the biggest challenges entrepreneurs face is coming up with the right opportunity for a new venture. This is an applied and experiential course involving field research. Two key deliverables are the opportunity assessment project and the entrepreneurial marketing plan.

### ENTR 2990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

### ENTR 3217. Global Family Business Leadership. (4 Hours)

Offers students an opportunity to develop an understanding of the nuanced challenges facing entrepreneurial leaders in different cultural settings. While family businesses have been found to be both numerically and economically significant in most countries, these enterprises worldwide share many common issues. However, there are differences that emanate from specific institutional and cultural contexts. Understanding these differences and how they can affect leadership of a family business is increasingly important for stewards of family businesses in a global marketplace. Understanding the nature of international differences and appreciating the opportunities they offer for growth-oriented family business leaders is especially important as family businesses face unique barriers to international expansion. Required participation in spring break international field project.

**Prerequisite(s):** ENTR 3215 (may be taken concurrently) with a minimum grade of D- or ENTR 2215 (may be taken concurrently) with a minimum grade of D-

### ENTR 3220. International Entrepreneurship and Innovation Consulting. (4 Hours)

Offers students an opportunity to learn the principles and methods of consulting to growing companies and social enterprises abroad. This is done through a set of frameworks that focus on customer segmentation, product or service requirements, product-line and service strategy, business model design, and then internationalization strategy. Working in teams, students apply these frameworks to local companies in different business sectors and then prepare to apply them to client companies in their follow-on designated destination country. The final part of the course is preparation for the international field studies. This includes an introduction to effective methods for management consulting, including goal setting, team organization, and client management.

**ENTR 3302. Managing and Growing the Family Business. (4 Hours)**

Covers the issues and practices of successful multigeneration family businesses, including family values and culture, managing conflict, sibling rivalry, entitlement, hiring family and nonfamily employees, management of the family business, facilitating growth and change, and succession planning.

**ENTR 3305. Business Model Design and Innovation. (4 Hours)**

Considers dynamic entrepreneurial startup strategy from three perspectives: positioning of the venture within a dynamic, evolving industrial ecosystem that includes major companies, startups, and universities at various parts of the value-chain; different sources of innovation, including open innovation and industry-wide technology platforms; and business model design and implementation. Explores startup strategy from these perspectives using case studies and web-based company research projects and then asks students to develop their own strategy for a startup using the frameworks studied in class.

**ENTR 3306. Global Entrepreneurship. (4 Hours)**

Offers an opportunity to learn how entrepreneurs start, finance, and manage small businesses. Includes a field experience in South Africa, which involves identifying startups and small business for assistance in developing a business plan and seeking debt and/or equity financing. Students have an opportunity to consider the unique challenges encountered by entrepreneurs in economically disadvantaged communities and the additional challenges presented by South Africa's history of racism and its current struggles with HIV/AIDS. Teaches students the basic concepts and tools associated with small business management, such as preparing financial models and a written business plan and investment presentation, with the goal that they can provide meaningful consulting assistance to township entrepreneurs.

**Attribute(s):** NUpath Creative Express/Innov

**ENTR 3330. Design Thinking for Startups. (4 Hours)**

Focuses on how small teams can develop new products and services in a startup environment by applying design thinking methodology. Applies the management concept of lean, agile development to concept creation, customer research, prototype development, and market validation. Offers students an opportunity to apply these skills to their own new product or service ideas and develop prototypes during the semester. Students are assessed not only for the quality of their ideas and project execution but also for their ability to work in small teams, with limited resources, as in a traditional startup experience.

**ENTR 3401. Consulting Operations & Growth in SMEs. (4 Hours)**

Offers teams of students an opportunity to consult with owners of small- and medium-sized enterprises (SMEs) to develop project proposals and perform field casework specific to the needs of their SME clients. A highlight of this course is the SME consulting project. Through the project and course material, covers how to manage an SME from the day-to-day operations to strategic planning for growth. Exposes students to a variety of ways that an SME can achieve profitability and growth by generating lasting customer relationships, offering exemplary service, managing cash flow, implementing marketing strategies, and developing new and retooled products/services to reach new markets.

**ENTR 3990. Elective. (1-4 Hours)**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ENTR 4414. Bridging Conflict, Creating Diversity. (4 Hours)**

Offers students a unique opportunity to serve as management and marketing consultants to early stage startups. Students work with entrepreneurs from diverse backgrounds (e.g., ethnic, social, religious, demographic) with experience operating a joint startup. Focuses on development of conflict resolution and leadership development skills that may be needed when cofounders of a startup come from diverse backgrounds. Students experience firsthand some of the challenges that entrepreneurs face, as well as support entrepreneurs' efforts as problem solvers and collaborate to learn about entrepreneurship and marketing.

**ENTR 4501. Integrated Studies in Entrepreneurial Startups. (4 Hours)**

Designed as an advanced course for students who are studying entrepreneurship. Covers the issues raised when creating a technology venture that goes through multiple rounds of financing in order to become a successful large company. Topics include managing growth, writing business plans, raising money, and formulating exit strategies. Focuses on projects to obtain venture financing from venture capitalists, angels, and corporate investors.

**ENTR 4503. Integrated Studies in Family Business. (4 Hours)**

Designed for advanced students interested in launching a new venture or growing an existing business venture. Includes developing a business plan, strategy development for small- to medium-sized enterprises, sales forecasting, pro forma development, debt financing, and service developments. Sponsored by the Center for Family Business, focuses on obtaining a bank loan to start a business or to grow an existing small- to medium-sized venture.

**ENTR 4505. Entrepreneurial Venture Growth Strategies. (4 Hours)**

Focuses on helping technology ventures define and improve their strategies and tactics to achieve external funding. Studies frameworks for developing a growth-focused product and service strategy; techniques to grow and evolve a startup team, creating scalable business models; and early stage, successive-round venture finance. Working in teams, students must apply these methods to improve the business plans for early stage technology ventures and to create new financial projections and investor packages for early stage ventures, with specific assessments of customer focus and needs, intellectual property, new product-line and technology strategy, and business model design. Company projects include the fields of web services, IT, healthcare, and life sciences. The course is a practicum on how to get new venture concepts funded and scaled from the perspective of entrepreneur and investor.

**ENTR 4510. Management Consulting Abroad. (4 Hours)**

Offers an intensive field consulting program with local ventures in different countries. Designed to have students experience firsthand the challenges that entrepreneurs confront internationalizing products and services as well as core product management issues. In some cases, students work in cross-culture consulting teams with local stakeholders. Projects vary widely but typically involve assessment of current product line and services strategy, marketing approaches, and how these must be adapted for foreign markets, including the United States. This is a field consulting course with heavy client engagement, requiring detailed written and oral communications for the client.

**Prerequisite(s):** ENTR 2301 (may be taken concurrently) with a minimum grade of D- or ENTR 3220 (may be taken concurrently) with a minimum grade of D-

**Attribute(s):** NUPath Creative Express/Innov, NUPath Integration Experience

**ENTR 4983. Special Topics in Entrepreneurship. (4 Hours)**

Covers special topics in entrepreneurship. May be repeated once.

**ENTR 4990. Elective. (1-4 Hours)**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ENTR 4992. Directed Study. (1-4 Hours)**

Offers independent work under the direction of members of the department on a chosen topic. Course content depends on instructor. May be repeated without limit.

**ENTR 5000. New Venture Development. (1-4 Hours)**

Pairs students with entrepreneurs and faculty in a mentorship capacity. This experiential learning is designed to accelerate entrepreneurial projects. Uses classroom learning to enhance project value proposition, market opportunity, technology development level, financials, go-to-market-strategy, and pitches.

**ENTR 6210. Managing Operations in Early Stage Ventures. (3 Hours)**

Stresses the operating problems of managing small businesses. Case studies develop analytical approaches for appraising the risks and rewards of potential growth opportunities as well as operating problems. Problems range from locating, evaluating, marketing, and financing a small company to the survival and growth of more established businesses. Guest speakers and entrepreneurs provide pertinent business perspectives to in-class activities.

**ENTR 6211. Entrepreneurship: Services and Retail Business Creation. (3 Hours)**

Covers the issues surrounding the creation of a new business in the service and retail sectors. Emphasizes issues relating to the startup, growth, and operation of business ventures in these areas. Topics include developing a business plan for startup, market positioning, services design, operations management, sales forecasting, cash flow management, and venture financing with a heavy emphasis on debt financing. Students are asked to develop business plans for services and retail ventures of their own choosing as the class project. Requires prior completion of 9 SH of MBA core courses.

**ENTR 6212. Business Planning for New Ventures. (3 Hours)**

Gives students the opportunity to build a complete business plan for new high-potential ventures. Covers all aspects of the planning process, from the point of view of both the prospective entrepreneur and the potential investor. Explores the demands of the entrepreneurial career through reading, self-assessment exercises, and group projects. Guest speakers from startup companies, law firms, and venture capital firms provide a window on current experiences in the small-business world. Recommended for prospective entrepreneurs as well as others who may become involved with new ventures.

**ENTR 6214. Social Enterprise. (3 Hours)**

Designed to provide students with an in-depth exposure to entrepreneurship in the social sector, a rapidly growing segment of the global economy. Uses the case method to expose students to leading entrepreneurs who have developed and implemented business models to solve social problems such as extreme poverty, disease, illiteracy, and economic and social dislocation. Focuses on uniquely creative and driven people who have dedicated their lives to making a difference in the lives of others through values-based entrepreneurship.

**ENTR 6216. Global Social Entrepreneurship and Innovation. (3 Hours)**

Explores using innovation to build and create value in the larger global context. Examines some of the latest innovation practices: (1) to build and create value within emerging economies, (2) to facilitate social entrepreneurship, (3) to promote sustainable development, and (4) to build and create value at the bottom of the pyramid. Exposes students to what successful entrepreneurs must learn to balance business demands with the larger need for innovative thinking. Stresses the application of successful practices to generate results. Topics include creating and sharing knowledge and intellectual property, exploiting systems and networks, redefining disruptive innovation, and the steps necessary to make innovation and entrepreneurship happen in a variety of global contexts. Uses real-life examples and case studies to illustrate successful practices.

**ENTR 6218. Business Model Design and Innovation. (3 Hours)**

Introduces major topics in the modern understanding of business models: their essence and role in securing competitive advantage, key components and design of business models, business model change and innovation, technology commercialization through sustaining business models, financial representation of a business model, and validation of developed business models.

**ENTR 6219. Financing Ventures from Early Stage to Exit. (3 Hours)**

Introduces students to the financing process for ventures from early stage to exit. Exposes students to various financing options, which may include crowdsourcing, the American JOBS Act, and foreign-sourced capital, as well as different types of debt and equity financing. Offers students an opportunity to learn about analyzing financial aspects of term sheets, including valuation methodologies and other financing documents.

**ENTR 6240. Emerging and Disruptive Technologies. (3 Hours)**

Covers the role emerging technologies play in innovation for new ventures and established corporations. Includes a mix of theory and practical knowledge. Topics covered include technology disruption, diffusion, life cycles, and research-and-development strategy. Explores, in detail, the technical and market opportunities for current and emerging technologies across a broad spectrum of industries.

**ENTR 6241. Entrepreneurial Marketing and Selling. (3 Hours)**

Examines the specific situation of entrepreneurial marketing. Topics include how to perform a market analysis when there are limited resources and tight schedules to be met. Also addresses new market situations, opportunity assessment, customer segmentation, going to market, and writing a marketing plan.

**ENTR 6250. Lean Design and Development. (3 Hours)**

Covers the intersection of customer research with product design, specifically lean design and how to map abstract attributes that customers seek into concrete product designs that can actually be built. Other topics include managing the technology business interface, creating product teams, and drafting product development plans. Open to first-year graduate students.

**ENTR 6300. Managing a Technology-Based Business. (3 Hours)**

Covers topics specific to managing a business or a strategic business unit within a firm. Considers the special issues related to technology-based firms. Topics include creating a culture, operations planning, staffing for technical excellence, dealing with technology vendors, dealing with advisers, supply chain management, and writing operations plans. Open to first-year graduate students.

**ENTR 6318. Innovation Driven Strategy. (2 Hours)**

Introduces a number of entrepreneurship and innovation topics, including innovation and entrepreneurship as a value-creating activity for economies and firms; types of innovation (technological, process, products, business models); fundamentals of product development (design thinking, rapid prototyping, ethnography); startup creation and articulating a value proposition; the role and traits of the entrepreneur; maximizing odds of success and minimizing odds of failure; growing the startup and creating a market; finding or creating the right niche; pivoting and judo strategy; lean startup approach; innovation in established firms and resistance to change; organizational inertia; business model change; and technological discontinuities.

**ENTR 6320. Innovation, Entrepreneurship, and Dynamic Competition. (3 Hours)**

Explores the life cycle of industries and their effects on the dynamics of competition, including the creation of industries and the role of startups and proliferation of designs; the half-truth of entry timing advantage; design competition, emergence of dominant designs, and implication for firm strategy and industry structure; the onset of maturity: the role of process innovation and incremental product changes; technological discontinuities, challenges for incumbents, and opportunities for new entrants; the hybrid trap and how incumbents often miss the mark during times of industry transformation; the rise of platform disruptions and winner-take-all dynamics; the sociocognitive dimension of industry evolution: product categories and framing; and best practices for managing innovation in startups and established firms. Taught through a combination of cases, vignettes, and interactive lectures.

**ENTR 6340. The Technical Entrepreneur as Leader. (3 Hours)**

Focuses on the personal skills an entrepreneur needs to lead and persuade others. Students read about and complete exercises on leadership and selling ideas. In addition, students meet members of the entrepreneurship community in New England. Stresses communications skills, both written and oral, along with self-discovery of leadership style.

**ENTR 6962. Elective. (1-4 Hours)**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ENTR 7976. Directed Study. (1-4 Hours)**

Offers independent work under the direction of members of the department on chosen topics. May be repeated without limit.