

**The Sustainable Innovation MBA**  
**Grossman School of Business, University of Vermont**

**Course Descriptions: 2018-19 Curriculum**

Module	Module & Course Title	Credits	Dates & Instructor
<b>Pre-M1 - MBA 300</b>	<b><i>Business Fundamentals (Online, Self-Paced)</i></b>		<b>Aug 1 - Aug 11, 2018</b>
	Financial Accounting for Sustainable Enterprises	1	Joanne Pencak
	<b>Total August Term Credits:</b>	<b>1</b>	
<b>Module 1 - MBA 301</b>	<b><i>M1: Foundations of Management</i></b>		<b>Aug 27-Oct 19, 2018</b>
301.01	World Challenges	1	M. Dupee, S. Hart, S. Sharma, & T. Ricketts
301.02	Business Strategy for a Sustainable World	2	Mike Dupee
301.03	Finance for Innovators	2	Chuck Schnitzlein
301.04	Sustainable Brand Marketing	2	Carolyn Bonifield
301.05	Teamwork and Collaboration for Sustained Innovation	1	Stuart Hart
301.06	Business Economics	1	Rick Vanden Bergh
301.07	Sustainability Toolkit I	1	Stuart Hart
	<b>Total Module 1 Credits:</b>	<b>10</b>	
<b>Module 2 - MBA 302</b>	<b><i>M2: Building A Sustainable Enterprise</i></b>		<b>Oct 22 - Dec 14, 2018</b>
302.01	Entrepreneurial Family Business	1	Dita Sharma
302.02	Crafting the Entrepreneurial Business Model	2	Erik Monsen
302.03	Marketing Decision Making Under Uncertainty	1	Tom Noordewier
302.04	Leading for Sustainable Innovation	2	Kenneth De Roeck
302.05	Finance for Innovators	1	Chuck Schnitzlein
302.06	Cost Models for the Transformational Enterprise	1	Joanne Pencak
302.07	Practicum Project Scoping	1	Stuart Hart
	<b>Total Module 2 Credits:</b>	<b>9</b>	
<b>Module 3 - MBA 303</b>	<b><i>M3: Growing A Sustainable Enterprise</i></b>		<b>Jan 14 - Mar 8, 2019</b>
303.01	Strategic CSR & Sustainable Value	2	David Jones
303.02	Sustainable Operations and Green Supply Chains	2	Mike Dupee
303.03	Law as a Framework for Entrepreneurial Business	1	O. Goodenough & R. Purdom
303.04	Business Sustainability and Public Policy	2	Rick Vanden Bergh
303.05	Financing a Sustainable Venture	2	Cairn Cross
	<b>Total Module 3 Credits:</b>	<b>9</b>	
<b>Module 4 - MBA 304</b>	<b><i>M4: Focusing On Sustainability and Entrepreneurship</i></b>		<b>Mar 18 - May 6, 2019</b>
304.01	Driving Sustainable Change	2	Ante Glavas
304.02	Sustainable Intrapreneurship	1	Erik Monsen
304.03	Driving Innovation from the Base of the Pyramid	1	Srinivas Venugopal
304.04	Alternative Finance Structures for Sustainable Enterprise	1	Cairn Cross
304.05	Sustainable Energy Technology and Policy	1	Kevin Jones (VLS)
304.06	Systems Tools for Sustainability	2	Matt Mayberry
304.07	Sustainability Toolkit II	1	David Jones
	<b>Total Module 4 Credits:</b>	<b>9</b>	
<b>Practicum - MBA 305</b>	<b><i>Sustainable Entrepreneurship in Action</i></b>		<b>May 20 - Aug 9, 2019</b>
305.01	Summer Practicum Project	7	Stuart Hart
	<b>Total Summer Practicum Credits:</b>	<b>7</b>	
<b>Total Program Credits:</b>		<b>45</b>	

## Mission

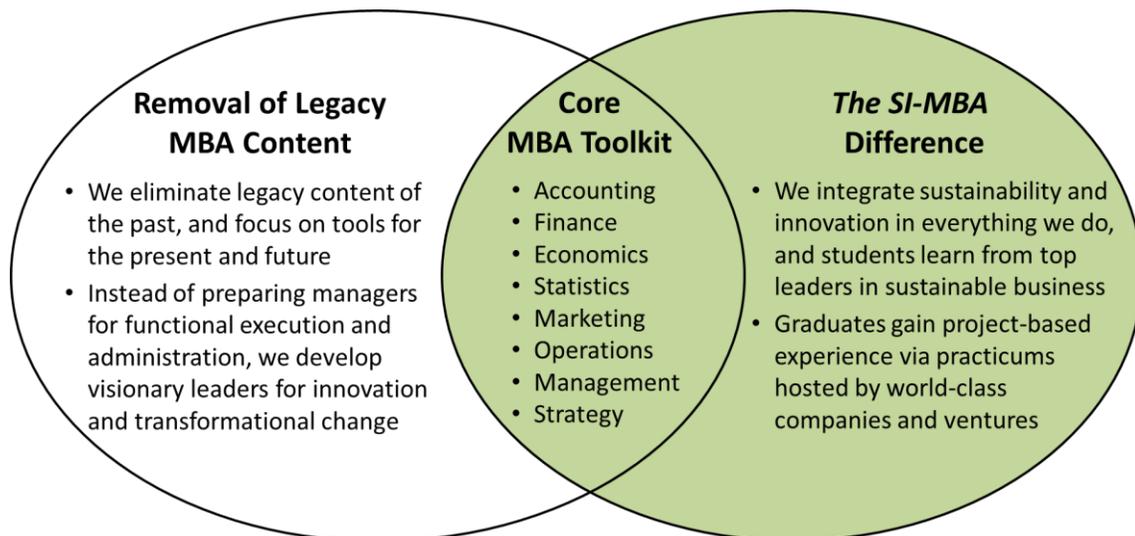
*The Sustainable Innovation MBA* prepares and trains individuals to create profitable and sustainable business opportunities in a world undergoing transformational change. We aim to develop the next generation of leaders who will build, disrupt, innovate, and reinvent sustainable business and enterprises in a world that demands it.

## Training Model

***An MBA Degree from an AACSB-Accredited Business School in 1 (Very Busy) Year***



***A Core MBA Toolkit + Tools for Sustainable Innovation + Project-Based Experience***



## Course Descriptions: 2018-19 Curriculum

### Pre-Module 1 (August 1 - 11, 2018)

#### **MBA 300: Financial Accounting for Sustainable Enterprises (1 credit hour)**

The overarching goal of this online self-paced course is to provide students with a basic comprehension of the accounting tools necessary for success in *The Sustainable Innovation MBA* program, and in sustainable business more broadly. The course is designed both to serve as an introduction to key accounting concepts and to provide a review for students who have studied accounting in the past. Throughout, students will learn accounting principles and skills (e.g., preparing and interpreting different types of financial statements, accounting standards, etc.) through examples grounded in sustainable business contexts. Students will also learn about standard setting bodies for reporting on sustainability, and become familiar with emerging trends in accounting for sustainable enterprises that use profitable business models to address social and environmental challenges.

### Module 1 Courses (August 27 - October 19, 2018)

#### **MBA 301.01: World Challenges (1 credit hour)**

This course exposes students to major global challenges, and the opportunities for business ventures to provide sustainable solutions that help address them. The course covers both the ecological/biophysical as well as the social aspects of the global sustainability challenge. Students will develop a deeper understanding of the challenges of climate change, resource and natural capital depletion, water scarcity, and the opportunities for much more eco-efficient and sustainable food and energy production, and resource utilization. Students will also develop a deeper understanding of the challenges of population growth, poverty, and income inequality, and the importance of multi-stakeholder engagement when it comes to addressing these challenges. The course culminates in a team assignment to develop a business opportunity addressing one or more of the 17 Sustainable Development Goals.

#### **MBA 301.02: Business Strategy for a Sustainable World (2 credit hours)**

As we move toward the third decade of the 21<sup>st</sup> century, the very nature of corporate and competitive strategy is undergoing radical transformation. Gone are the days when firms could conduct comprehensive industry analyses, craft and implement clearly defined competitive strategies, gain competitive advantage, and protect a long-term position. A number of forces have conspired to make such a rational approach to strategy virtually obsolete, including the:

- accelerating rate of technological change
- information revolution
- blurring of traditional industry boundaries
- opening of previously closed markets
- widening gap between rich and poor
- mounting environmental crisis

- problems of population and poverty
- growing demand for corporate transparency and accountability
- proliferation of new stakeholders

Taken together, these forces make strategic management in the future less a game of *planning and analysis* and more a game of *innovation and entrepreneurship*. Business will become increasingly focused on transformation rather than continuous improvement, as the global challenges of sustainability come to dominate the competitive landscape. Over the next decade or two, entire industries will be restructured, with many incumbents losing their positions to new entrants emerging from beyond traditional industry boundaries. Sustainable innovation will become the name of the game.

By 2030, the energy, automobile, chemical, materials, utility, food, and forest products industries will almost certainly look radically different than they do today. The communications, electronics, computer hardware, software, financial services, and knowledge industries will lead the charge in radically redefining the way in which we serve human needs. This is the world in which you will spend your professional careers. Acquiring a map to help navigate these treacherous waters will be essential not just to survive but to thrive through the creation of sustainable value that supports business objectives through fulfilling unmet needs and addressing social and environmental challenges.

### **MBA 301.03: Finance for Innovators (2 credit hours, + 1 credit hour in Module 2)**

Finance as a scientific discipline is broadly concerned with how to allocate scarce resources over time when there is uncertainty with respect to the costs and benefits of the allocation decisions. Within finance there are two major strands of study and practice: corporate (or business) finance and investment finance. Business finance is primarily concerned with the decision-making process of those who require capital to deliver goods or services. Investment finance is viewed from the perspective of those that provide capital and then manage the investments, often as part of a portfolio. In practice, business finance and investment finance are in many ways intertwined, but this taxonomy provides a starting point for organizing the systematic study of the decision-making tools that are invaluable in our market economy, which has an extraordinarily complex financial system.

This course is primarily concerned with decisions to obtain and deploy capital to finance long-term investments that are needed to develop innovative ventures that create sustainable value by generating profit through addressing challenges relating to climate change and social justice to scale. Students will learn, among other things, how to conduct financial analyses of projects and firms, the pros and cons of different types of financial instruments in the context of creating sustainable value, and understand the effects of leverage on a business and the tradeoffs between debt and equity financing.

During Module 2, we build on the material covered during Module 1 to develop the framework for making decisions to obtain and deploy capital to finance long-term investments. The starting point is discounted cash flow analysis. We then explore how this approach must be

modified to be consistent with long-term sustainability goals and develop additional decision-making tools including real options analysis. We also examine various techniques for identifying the appropriate risk-premium for sustainable business projects and strategies.

**MBA 301.04: Sustainable Brand Marketing (2 credit hours)**

Strong brands are among a firm’s most important assets – how they are managed can influence consumers’ buying decisions in significant ways. To create value and profits for stakeholders in a socially-conscious and environmentally-responsible manner, there is a need to manage brands for both short-term viability and long-term sustainability. By managing brands strategically, firms can increase their competitive advantage and profitability over the long range, thereby allowing them to continue their investments in strategies that create sustainable value and profitable solutions to social and environmental challenges.

This course addresses key areas of brand management including how strong brands are created, and how brand equity is developed and managed over time. Students will learn about fundamental concepts and real-life application through a combination of lecture, examples, cases, and class discussion. While the course content includes topics like cause-related marketing and responsible marketing practices, emphasis is placed on using brand strategies to advance sustainable business objectives and enhance a firm’s long-term profitability through business models that create social and environmental value through its core business operations. Students will learn from business leaders who have done just that, such as like Jeffrey Hollender (Founder and Former CEO of Seventh Generation) and others.

**MBA 301.05: Teamwork and Collaboration for Sustained Innovation (1 credit hour)**

In increasingly competitive, globalized, and complex business environments, few entrepreneurs and business professionals can accomplish their objectives—never mind achieving audacious visionary goals—by working alone. Sustainable business innovations are achieved through teamwork and collaboration, which requires leaders to invest time and energy to build and maintain healthy long-term relationships with key collaborators to achieve sustained innovation.

This course is designed to develop and hone students’ interpersonal skills pertaining to teamwork, collaboration, and relationship building. The interpersonal skills covered in this course focus on:

- Using self-awareness and insights about others to inform team interactions and build healthy collaborative relationships;
- Enhancing team cohesion and establishing norms that support team performance;
- Giving constructive feedback, and using active listening to receive it;
- Working effectively with diverse team members to leverage their talents and work through or around their weaknesses;
- Knowing how and when to “step up” and lead a team, and when to “sit down” and be led by others;
- Communicating to prevent, address, and resolve conflict;

- Overcoming challenges to team decision making and other hindrances to sustainable innovation;
- Running and facilitating effective team meetings; and
- Understanding how human diversity—in all its forms, including deep- and surface-level diversity—influences team development and cohesion, constructive and destructive conflict, and team performance with respect to developing and executing innovative solutions to complex problems and opportunities pertaining to sustainable business strategy.

**MBA 301.06: Business Economics (1 credit hour)**

This is a “tools” course. You will learn the basics of how to analyze business questions through an economics lens and to begin to see both the benefits and limitations of the economic way of thinking in the context of sustainable business strategy. To develop your individual toolkit, we will spend the majority of our time thinking through business and sustainability problems using economic models, and quantitative and qualitative analysis. We will develop an understanding of the key factors that affect consumer choices. We will analyze firm costs and consider how firms choose output levels and identify price improvements. We will explore how firms compete against rivals and how firms think about responding to rival choices. Each day we will apply what we are learning to issues of interest to innovators who seek to create sustainable value through business.

**MBA 301.07: Sustainability Toolkit I (1 credit hour)**

The core of this course is a series of workshops designed to develop skills and use tools and frameworks to create and execute innovative sustainable business strategies. Fall 2018 workshops include, for example: Understanding Privilege and Addressing Bias, Materiality Assessment to Inform Sustainability Strategy, Stakeholder Engagement through Social Media, and Conducting Product Life Cycle Analysis.

**Module 2 Courses (October 22 - December 14, 2018)**

**MBA 302.01: Entrepreneurial Family Business (1 credit hour)**

Family businesses (FB) are the predominant form of business organizations in the world contributing an estimated 70-90% of the global GDP. In the United States, family enterprises contribute over 64% of GDP and generate 62% of employment. And, in other parts of the world, their contribution is even higher. The greatest part of global wealth lies with family-controlled firms. These firms are distinguished from other enterprises by the significant influence of the controlling family on the creation, continuity, mode and extent of growth, and exit of a business.

In this course, we learn about the unique dynamics and dilemmas of FB. Such an understanding is helpful to work effectively and professionally, in and with enterprising families, to launch and create sustainable new ventures. Course readings and case studies shed light on issues faced and strategies adopted by leaders of the most progressive long-lived enterprises.

Throughout the course, emphasis is placed on understanding why family businesses are important and effective vehicles to create social and environmental impact through innovative business models that are less prone to the pressures of “short-termism.” That is, family businesses have opportunities to create shared value that can be sustained over generations of leaders, and economic and industry life cycles, while embracing transgenerational entrepreneurship and innovation as part of their culture.

**MBA 302.02: Crafting the Entrepreneurial Business Model (2 credit hours)**

Entrepreneurial activities have a significant impact on individual lives and careers as they enable the growth and sustainability of organizations. By introducing change and innovation into the economic and social system, entrepreneurs force other individuals and organizations to constantly adapt to changing social and environmental contexts. New business models, products/services, processes and organizational practices make it virtually impossible for business professionals to settle down into routine work and linear career paths.

This course focuses on developing a business model to assess the viability of an innovative idea designed to create sustainable value. This exercise enables students to understand the critical role of the business foundations such as accountancy, finance, marketing, management, operations, and sustainable business strategy in order to create new value and new ventures. Students working in their Learning Teams will create their own venture designed to achieve sustainable value. In prior years, for example, teams have created ventures intended to reduce environmental impact, such as ventures that sell non-animal high-protein food products, or pet toys sourced from materials that were otherwise destined for landfills.

**MBA 302.03: Marketing Decision Making Under Uncertainty (1 credit hour)**

Almost all ventures designed to create sustainable value by generating profit through innovative solutions to social and environmental challenges operate in contexts of constant uncertainty. In this context, effective marketing decision-making involves identifying and defining marketing opportunities and problems, generating and evaluating marketing actions, and monitoring marketing performance. This post-introductory course explores how research links the organization to target markets through the collection and analysis of information. Students will learn how to translate a sustainable business problem or opportunity into a researchable question, select a suitable research design, employ valid and reliable measures, and collect, analyze and interpret data using appropriate statistical tools.

**MBA 302.04: Leading for Sustainable Innovation (2 credit hours)**

In today’s increasingly globalized, competitive, and rapidly evolving business environment, an organization’s people can be a valuable source of innovation and sustained competitive advantage. The overarching purpose of this course is to help students develop leadership skills to realize these ends in the contexts of early-stage *entrepreneurial* “startups” and *intrapreneurial* enterprises embedded within established organizational contexts and cultures. Emphasis is placed on skills needed to create sustainable value, and visionary leadership

practices that harness purpose-driven missions to disrupt business as usual by creating solutions to world challenges that are sustainable *because* they are profitable.

The capstone experience is a team project about enacting large scale organizational transformation to achieve a bold sustainable business strategy. Students have access to “insider” materials provided by a leading sustainable business that sells 100% recycled aluminum, and the case requires students to apply core course material about leadership practices to manage relationships with employees, and principles of compensation equity that are aligned with sustainability goals.

**MBA 302.05: Finance for Innovators (1 credit hour, continued from MBA 301.03)**

The *Finance for Innovators* course that began in Module 1 continues through to the end of Module 2. (See the course description above for MBA 301.03).

**MBA 302.06: Cost Models for the Transformational Enterprise (1 credit hour)**

This course focuses on developing the capacity to make wise, informed, ethical, and sustainably-focused decisions through the use of accounting and financial tools. To these ends, we will:

- apply principles and generalizations already learned in accounting and finance courses to new sustainable business problems and situations;
- synthesize and integrate concepts from nonfinancial classes and current events;
- use costs and other critical success factors in decision making, management planning, and operational control within sustainable business contexts;
- Master mental models for the communication of financial information and nonfinancial information;
- Recognize the limitations of accounting and financial models in the highly uncertain contexts that often exist when implementing innovative sustainable business strategies; and
- Explore cost models that take into account the interests of stakeholders beyond a firm’s customers and owners.

**MBA 302.07: Practicum Project Scoping (1 credit hour)**

The capstone learning experience in this program is a summer Practicum Project—a full-time, hands-on, three-month experiential engagement with established companies or early stage ventures (host organizations) from the US and around the world that are focused on addressing the real-world challenges and opportunities associated with sustainable innovation.

Data will be collected from students to understand their specific interests to inform the projects to which they are assigned. Each practicum project is typically completed by a team of 2-4 students, and all projects are designed to create mutual value for students and host organizations.

Course deliverables include a project description approved by the host organization, and a presentation and slide deck that includes the following elements:

1. Background and context on the organization and project
2. The Sustainable Innovation challenge/opportunity
3. Specific project goals
4. Initial thoughts on timeline and project plan
5. Expected project deliverables

Below are four illustrative examples of practicum projects completed in the prior 2017-18 academic year (for descriptions of all 2017-18 practicum projects, see: <https://www.uvm.edu/business/2017-2018-practicum-projects>).

**Project Title** – *Igniting Change by Uniting Forces*

**Host** – *ByFusion*



ByFusion is an innovative manufacturing company dedicated to disrupting the recycling industry by reshaping the future of plastics. The ByFusion practicum will focus on identifying new business opportunities by developing a corporate partnership strategy to maximize our collective efforts to heal the planet. ByFusion sees an opportunity to synergize with environmentally conscious corporations to allow them to have a positive, measurable impact on their communities; creating a win-win situation that solidifies both organizations as essential cogs in a new circular economy.

**Project Title** – *See Change: Bringing Sustainable Vision Care to the Base of Pyramid Populations*

**Host** – *Essilor*



The world's leading ophthalmic optics company, Essilor designs, manufactures and markets a wide range of lenses to improve and protect eyesight, globally. 4.6 billion people in the world have visual defects, and 2.5 billion still do not have the vision correction they need, 90% live in developing countries. In line with Essilor's core mission of improving lives by improving sight and its firm belief that good vision should be a development priority to reach the UN's Sustainable Development Goals, the company launched a dedicated division to tackle this issue with a focus on advocacy, philanthropy and inclusive business models.

Through the inclusive business arm - 2.5 New Vision Generation (2.5 NVG), the Group is creating access to affordable eye care, generating employment and alleviating poverty, by building a taskforce of skilled primary vision care providers and micro-entrepreneurs in underserved areas. One of the many countries positively affected by Essilor Group is Ivory Coast. As part of the practicum project, the team will assess the efficacy of Essilor's programs in creating access to vision care for BoP population in Ivory Coast in addition measuring the socio-economic impact of such activities on local communities. This would help shape the strategy for future efforts in the region.

**Project Title – Scoping a “Shared Value” Start-Up****Host – Griffith Foods**

Griffith Foods is a product development partner specializing in food ingredients, serving global and regional food companies worldwide. As a family-owned company, Griffith Foods is committed to helping their customers succeed through true, collaborative innovation – “Creating Better Together”. Griffith Foods is driven by its Purpose – “We Blend Care and Creativity to Nourish the World” and is dedicated to integrating sustainability into its core strategy and operations.

This practicum project is seeking to expand the scope and scale of the successful Griffith Sustainably Sourced [GSS] program, combined with similar ‘Shared Value’ and Base of the Pyramid initiatives that the company has been working on and that are at various stages of development. The team is looking to work with Griffith Foods on creating an independent company that will be set up and wholly owned by the company. The objectives of this new company will be to: 1. Serve the Griffith Foods Purpose through greater impact to small holder farmers, communities and society; and 2. Enable execution of Griffith Foods' Purpose-driven strategy. Students will work with a team from Griffith Foods, develop a comprehensive business plan for a ‘shared value start up’ that will operate as a separate company within the Griffith Foods group of companies. Goals of the project will include: identify new external customers; create new products and categories; enter new market segments; increase retention and penetration of existing customers/products; obtain, build and leverage new differentiated capabilities in shared value, partnerships/ecosystems and health and nutrition.

**Project Title – Strategic Initiatives for Driving Inclusion in Business****Host – Rhino Foods**

The Rhino Foods practicum team will support the continued growth of Rhino’s inclusive, innovative workplace and culture. To further evaluate and develop practices that align with the company’s Purpose, Rhino is considering the creation of their first ever Impact Report. Using B Lab Impact Assessment data, the team will work across departments (marketing, supply chain, operations, sales and marketing and HR) to highlight social and environmental sustainability, explore avenues for new value creation, and drive internal strategy. The team will benchmark other impact reports, develop processes for evaluating activities and impact, and compose a draft copy. Most importantly, the team will use a participatory approach during this process to gather stories from Rhino staff, key stakeholders and other B Corp certified businesses and make strategic recommendations to the Rhino leadership team. The team will also work to determine how this report will support and highlight Rhino’s B Corp certification

**Module 3 Courses (January 14 - March 8, 2019)****MBA 303.01: Strategic CSR and Sustainable Value (2 credit hours)**

For-profit companies play critical roles in modern societies by creating much of the wealth on which societal well-being depends. But in doing so, businesses create externalities and cause other harms to people, communities, and the natural environment. The scale of these impacts,

both positive and negative, has motivated internal and external stakeholders to shape and enforce the rules and expectations that businesses need to fulfill through their business operations and conduct. This dynamic interaction between corporations and society can be understood and examined through the conceptual lenses, empirical studies, and business practices that are often described using the language of Corporate Social Responsibility (CSR) and Sustainable Business Strategy (SBS).

A growing number of social entrepreneurs and smartly-managed companies have developed innovative products and services that help solve local and global challenges. Therein lies the promise of scalability: When a business profits from practices that generate positive social impact, business leaders are incentivized to maintain or increase their investments in those practices, thereby generating social value that is sustained by market forces and enduring motives to profit.

To be effective agents of change, students need to develop a broad toolkit to design new ventures that create sustained shared value, and to help companies evolve from where they are to where they want to be. This course is designed to help students develop an initial set of tools, and to enable their capacity to add to their toolkit over time.

Specifically, this course is designed to develop students' abilities to:

1. Become "fluent in the language" of CSR by understanding contemporary conceptualizations and distinctions among conceptually-related concepts (e.g., defensive CSR, corporate citizenship, traditional CSR, triple bottom line approach, mission-driven business, social enterprise, and strategic CSR);
2. Describe the nature of contemporary CSR practices, and the major sources of potential returns and business value from CSR;
3. Identify the three categories of CSR Motives that propel business leaders' investments in CSR and shape stakeholders' reactions to CSR, and apply the three CSR Motives to manage stakeholder relationships and generate returns through strategic CSR;
4. Identify different positions on the 'proper' role of CSR in business and society;
5. Communicate an informed description of 'The Business Case for CSR', and a persuasive argument for 'The Strategic Case for CSR';
6. Apply frameworks to strategically prioritize CSR issue engagement, stakeholder concerns, and stakeholder focus;
7. Apply an evidenced-based approach to design and manage CSR practices to engage and invoke positive responses from different stakeholder groups;
8. Appreciate the challenges associated with CSR communication, and apply evidenced-based communication strategies;
9. Become "fluent in the language" of SBS by understanding different approaches and distinctions among conceptually-related concepts and frameworks (e.g., sustainability strategy, conscious capitalism, shared value, and sustainable value);
10. Understand the three ways to create shared value, and how shared value creation differs from conscious capitalism and ways to create sustainable value;

11. Integrate and embed CSR and SBS throughout a company's purpose, vision, mission and strategy to create sustainable shared value; and
12. Be an effective change agent through persuasive communication, leading with purpose, building culture, and inspiring others.

**MBA 303.02: Sustainable Operations and Green Supply Chains (2 credit hours)**

The domain of supply chains and operations is where the rubber meets the road (literally!) in the development and delivery of products and services in our economy. The design and management of effective supply chains and operations is a dynamic process of understanding how to (a) obtain access to necessary components (raw materials, technology, information, expertise, relationships, etc.), (b) transform those components through value-added activities into desirable end products or services, and (c) deliver those products or services to your customers.

While many of the fundamental tools that drive and enable effective operations management have been established for years, if not decades, a number of more modern trends are driving sustainable innovation in this discipline, including:

- Consumer/regulatory demand for “sustainability” in products and operations;
- A growing recognition of the limits and consequences of unchecked consumption of natural resources;
- The value represented by the “low-hanging fruit” of internal operational efficiency;
- The tension between long-term optimization vs. short-term efficiency;
- The maturation and ascendancy of design thinking as a discipline;
- The information and technology revolution of the past thirty years; and
- The rise of social media and stakeholder swarms.

In this course, we will explore foundational concepts in supply chain and operations management alongside the trends, tools, and innovations that make it possible to embed sustainability more deeply into an organization's core activities than ever before and position the organization to succeed responsibly and sustainably in the emerging global business environment.

**MBA 303.03: Law as a Framework for Entrepreneurial Business (1 credit hour)**

The goals of this course are to provide students with an introduction to several of the core legal areas with applicability to entrepreneurial business, including both doctrinal knowledge and an understanding of the application of doctrine to achieve advantageous legal outcomes through such avenues as intellectual property, contracting, and debt and equity finance. Emphasis is placed on legal concepts that are particularly germane to creating and transforming businesses to create sustainable value.

**MBA 303.04: Business Sustainability and Public Policy (2 credit hours)**

A firm's business environment has market and nonmarket components. In previous SI-MBA courses, you studied how firms craft a sustainable strategy in the market environment, and

learned how firms create added value for their stakeholders (e.g., owners, customers, employees, communities, the natural environment, etc.) through exchange in the market context.

In this course we will analyze critically “market exchange” and explore what is referred to as “market failures.” First, we will briefly explore the benefits of markets and discuss the role of government in facilitating market exchange. Then we will analyze alternative governance mechanisms to address certain types of market failure. The remainder of the course will be focused on understanding the “nonmarket environment.” While the nonmarket environment encompasses the broader political, social, and environmental context in which firms operate, we will emphasize the political context and address public policy issues affecting the natural environment and society as a whole. The political environment of business is increasingly occupying managers’ times and firms’ resources. Managers without exposure to these subjects can be unprepared to develop strategy, at great cost to their firms.

Accordingly, many successful businesses need to formulate strategy not only for their product markets, but also for the political systems in which they operate. This course addresses how businesses manage their interactions with demanders of public policy (e.g. activist interest groups, the public) and suppliers of public policy (e.g. political institutions, legislators, regulators). To pursue this objective, this course provides tools for understanding the political environment, institutions with oversight of common business activities, and the ways firms and other interest groups shape the political process that determines public policy that affects sustainable business strategies and the creation of sustainable value.

**MBA 303.05: Financing a Sustainable Venture (2 credit hours)**

This course will explore methods for financing innovative sustainable entrepreneurial ventures including angel investment, venture capital investment, as well as bank and alternative lender financing. Emerging topics in entrepreneurial finance such as crowdfunding, Vermont Small Business Offering Exemption and business plan competitions and acceleration programs will be discussed. The importance of aligning the interests of capital providers with the interests of the founding team and management in the context of sustainability objectives will be stressed.

The course is meant to be a helpful primer for students interested in financing or working for an innovative start-up or early stage venture that is designed to create sustainable value. We will discuss how sustainable entrepreneurs, investors and lenders create value and we will discuss how the interests among the three groups do not always coincide or align. We will discuss why it is important for sustainable entrepreneurial ventures to choose their sources of capital well.

Students undertake an extensive study of the various methods of financing a business venture including loans, alternative debt and equity financing, angel financing and venture capital. Study will focus on the fund-raising cycles of a business, the process of raising money for entrepreneurial ventures and emerging enterprises.

### **Module 4 Courses (March 18 - May 6, 2019)**

#### **MBA 304.01: Driving Sustainable Change (2 credit hours)**

In this course, students will learn how to use appreciative inquiry and other practices that build on a company's existing strengths to steer it towards more responsible business practices, including the deep changes required to create a circular economy. The content of the course is derived from in-depth, 'behind the scenes' material of successful sustainable business change initiatives in real companies with respect to meeting financial and social/environmental objectives.

The major learning objectives are to:

- Deepen students' ability to conceptualize and identify business opportunities through a sustainability lens by leveraging a firm's existing strengths, core competencies, and strategically valuable resources;
- Provide tools that SI-MBA graduates can use to drive transformational change that advances a firm's ability to generate profit while meeting or exceeding its social and environmental responsibilities; and
- Facilitate continued learning after the course is completed by increasing awareness about available tools and trends in sustainable business and transformational change.

#### **MBA 304.02: Sustainable Intrapreneurship (1 credit hour)**

This class focuses on sustainable intrapreneurship: creating, launching, and managing entrepreneurial sustainable business ventures within established companies. Corporate intrapreneurs typically face a number of challenges because long-established and large companies have entrenched systems, cultures, and bureaucracies that can impede risk-taking and fast-paced decision making in sustainable intrapreneurship contexts—contexts in which market reactions are often untested and difficult to estimate, and for which a company's normative decision-making processes and established procedures to project costs, revenues and timelines are poorly suited. Students will learn about these challenges and ways to overcome them, and how sustainable intrapreneurial ventures can be designed to align with and/or support the broader corporate strategy.

#### **MBA 304.03: Driving Innovation from the Base of the Pyramid (1 credit hour)**

The Base of the Pyramid (BoP) is a socio-economic designation for the more than 4 billion people living on less than \$8 a day. The "BoP" term is also used to refer to a type of business strategy that focuses on products, services and enterprises to serve this demographic in a way that is culturally sensitive, environmentally sustainable and economically profitable. There are tremendous potential benefits to companies who begin focusing on the poor as business partners and innovators, as well as, value-demanding customers. Companies and entrepreneurs who choose to serve these new markets will join a unique group of bold visionaries that not only embrace a new brand of corporate social responsibility, but will also experience a new mode of growth and profitability.

As we witness growing inequality and accelerating environmental degradation around the world (including right here in the US), commercial attention in the years ahead will inevitably come to focus more on breakthrough and disruptive innovations that directly confront these challenges. Increasingly, competitive advantage will hinge on innovations incubated from the base of the pyramid (BoP)—the ability to create tomorrow’s sustainable enterprises from the bottom up, by commercializing new, disruptive technologies through innovative business models focused on the underserved at the base of the world income pyramid. Ultimately, some of these innovations will also have the potential to “trickle up” to (and transform) the top of the pyramid through reverse innovation.

This course examines the emerging next-generation strategies that will reinvent industries and create new markets around the world in the coming decade—leapfrog, disruptive strategies, and business models that include and lift the four plus billion poor at the base of the income pyramid. Emphasis is placed on the new skills and capabilities that are required to succeed in this challenging new business space, including abilities to engage local communities, co-create new value propositions, design new business models, scale pilot business experiments, and assess triple bottom line impacts.

Through a combination of readings, case discussions, videos, projects, and examples from actual BoP initiatives; this course will critically examine these emerging strategies as vehicles for more effectively positioning companies for the 21st century. The goal is to develop the knowledge and capacity to effectively pursue such strategies, both within existing corporations (as intrapreneurs) and in start-up settings (as entrepreneurs).

**MBA 304.04: Alternative Finance Structures for Sustainable Enterprise (1 credit hour)**

This course is about alternative finance structures and sources of capital that offer values-aligned and/or uniquely-suited opportunities for social entrepreneurs and companies that are committed to achieving a social mission or executing a meaningful sustainability strategy. The interests of business owners, investor groups, lenders, employees and managers do not always coincide or align in obvious ways. In this context, we will discuss why it is important for social entrepreneurs and sustainable business leaders to choose their sources of capital well, and to carefully consider legal formation alternatives.

We will explore nontraditional methods for financing businesses and projects, as well as equity alternatives that are used to compensate employees such as Restricted Stock, Stock Appreciation Rights, Phantom Stock and Performance awards. The course will also explore financing challenges and opportunities associated with business structures such as Employee Stock Ownership Plans (ESOP) and Cooperative Ownership, Benefit Corporations, etc. The course will cover the use of Social Impact Bond financing structures for public/private community projects, and the creation and measurement of impact in private financings. The importance of aligning stakeholder interests via a carefully considered financing vehicle and

legal structure will be stressed. In particular the course is meant to stimulate discussion of aligning financing and business structure with sustainability goals.

**MBA 304.05: Sustainable Energy Technology and Policy (1 credit hour)**

In *Reinventing Fire*, Amory Lovins notes “electricity is poised for a profound leap in importance as the key enabler of the transitions in transportation, buildings, and industry...”. This course will explore the challenges and opportunities for transition to smart energy technologies and policies with a primary focus on how increased electrification is leading to global environmental improvement. Based on diverse organizations’ experience, this course will explore how sustainable energy technologies and associated smart policies offer real promise for supercharging energy efficiency, democratizing demand response, electrifying transportation, and preparing for ubiquitous distributed clean energy technologies -- all in the name of greening our energy footprint and forging environmental progress.

In recent years, leading corporations such as Google have set the gold standard in renewable energy procurement and today’s top renewable energy leaders “reads like a directory of corporate America.” In 2016, the Renewable Energy Buyers Alliance was formed by Business for Social Responsibility, Rocky Mountain Institute, World Resources Institute and the World Wildlife Fund. The organization’s goal is to drive 60 GW of new corporate renewable energy in the U.S. by 2025. The group announced that more than 60 companies are involved in the group’s initiatives. Eighty-eight leading companies have now joined RE100, which encouraged its members “to set a public goal to procure 100% of their electricity from renewable sources of energy by a specified year.” RE100’s members include such diverse companies as Apple, Bloomberg, Coca Cola Enterprises, Facebook, General Motors, Google, Microsoft, Pearson, Proctor and Gamble, Starbucks, Walmart, Wells Fargo and many others. The course will introduce you to the new technologies, explore the key laws and policies impacting these technologies and discuss strategies for achieving leadership in sustainability.

**MBA 304.06: Systems Tools for Sustainability (2 credit hours)**

To execute business models that create sustainable shared value, leaders and entrepreneurs will need to work across traditional strategic boundaries and develop solutions that address complex challenges such as climate change, gender inequality, hunger, and poverty. These are “wicked problems” because they are hard to define, there are competing objectives, and making progress requires changing peoples’ values, beliefs, or behavior. They are also complex systems challenges because they involve a tangle of interdependencies that make it hard to decipher cause and effect. These kinds of problems can’t be solved by tackling one piece at a time in isolation using linear thinking. Doing so may produce short-term results, but it usually leads to unintended negative consequences.

When our attempts to solve wicked problems fail it’s a sign that our mental models don’t align with how the world actually works. This disconnect can occur when feedback about our past actions is missing, delayed, or distorted. As a result, the intuition (mental model) we develop about how a system will respond to our intervention may be wrong. Even well-meaning change agents – seeking to bring about positive change in the world – can inadvertently act in ways

that make things worse rather than better. The goal of systems thinking – and of this course – is to help you think and learn in new ways so that you can develop better mental models.

The toolkit included in this course includes thinking skills and modeling tools that can help you analyze the key cause-and-effect relationships that determine a system’s behavior over time. You will have the chance to practice these skills during class sessions, within your practicum project team, and via the Rio Negro Bioproducts (RNB) simulation that runs in parallel with the course. During the simulation you and your team will be challenged to apply what you’ve learned throughout the SI-MBA program and work together to transform RNB from a conventional business to a sustainable enterprise. Each team includes management roles and external stakeholder roles to test your collaboration and systems thinking skills.

By the end of the course, you will be better able to:

- Reframe a vexing challenge as a systems problem to engage stakeholders and avoid blame;
- Create a map to help stakeholders see an integrated view of the whole system;
- Sketch behavior-over-time graphs that focus on patterns of change rather than isolated events;
- Use simple “stock and flow” diagrams to elucidate how structure (key interrelationships in the system) drives behavior;
- Draw causal loop diagrams that depict key feedback loops and delays within the system;
- Use systems archetypes (stories) as a way to explain why problems persist and explore possible interventions;
- Identify points of leverage that can increase the positive impact of interventions on the system in the long term;
- Use simulations and prototyping to test solutions before implementing them;
- Make complex business decisions with a cross-functional team by simultaneously considering the “big picture” and the details (bifocal vision); and
- Collaborate across business functions and with stakeholders to lead a systemic transformation that moves your organization towards a more sustainable model.

Achieving these learning objectives and becoming proficient in the use of sustainable systems tools will help you become a more effective change leader who can address both short- and long-term goals and balance the interests of people, profit, and planet. In the immediate future, this course will support your practicum project by helping you refine and test your mental models as you engage with your company’s stakeholders.

### **MBA 304.07: Sustainability Toolkit II (1 credit hour)**

The core of this course is a series of workshops designed to develop skills and use tools and frameworks to create and execute innovative sustainable business strategies. Through the first four sessions in Spring 2019, students working in teams complete a pro-bono consulting project focused on integrating sustainability reporting in performing a valuation for a tomato farm in Mexico that embeds triple bottom line approaches throughout its operations. Other skill-

building workshops during Spring 2019 include, for example: Sustainability Metrics and the Multi-capital Scorecard, and Using Biomimicry to Innovate for Sustainability.

### **Summer Practicum Project (May 20 - August 9, 2019)**

#### **MBA 305: Sustainable Entrepreneurship in Action (7 credit hours)**

The capstone learning experience in this program is a summer Practicum Project—a full-time, hands-on, three-month experiential engagement with established companies or early stage ventures (host organizations) from the US and around the world that are focused on addressing the real-world challenges and opportunities associated with sustainable innovation. Students will deliver a draft report to their faculty advisors, and a final report and presentation to their project's host organization. Below are four samples of 2018-19 practicum projects that MBA students are completing in summer 2019 (for descriptions of all projects, see: [https://www.uvm.edu/business/simba\\_practicum\\_projects](https://www.uvm.edu/business/simba_practicum_projects)).

***Project Title*** – *Evaluating Sustainability Impact in REI's Adventure Travel Operations*

***Host*** – *REI*

REI is the largest consumer cooperative in the United States, specializing in performance outdoor goods and adventure travel.

Sustainability is an integral part of REI: The Co-op donates millions of dollars every year to support conservation efforts locally, nationally, and globally, and it strives for positive environmental and social impact through initiatives like its product sustainability standards and its Force of Nature campaign.

The practicum will focus on REI's adventure travel program. As one of the largest adventure travel companies, REI is interested in aligning its practices with its core values. The SI-MBA team will evaluate the sustainability of REI's current operations, benchmark them against competitors, then recommend improvements. Evaluations will consider both global and localized environmental and economic impacts.

Ultimately, the project will consist of extensive market research, stakeholder analysis, and a thorough evaluation of REI's value chain. In addition, the team will strive to create an evaluative tool capable of measuring REI's sustainability in its multifaceted adventure travel operations.



***Project Title*** – *Finding a Solution in Retail to Single Use Plastic Bottle Waste Host Organization*

***Host*** – *Seventh Generation*

For the past 70 years, our society has adopted a dependence on single-use, disposable plastic products. In 2015 alone, the world produced over 320 million tons of plastic.



While some of those materials can be recycled, only a limited portion of all plastic containers that can be recycled actually are. Much of the estimated 8 billion tons of plastic that have been produced remain unaccounted for and much of that waste is likely polluting the world's waterways.

The purpose of this practicum is to research the industry challenge identified above and develop a clear, cohesive sales story for our Brick & Mortar customers to partner with Seventh Generation on developing a systemic solution to waste stemming from single-use plastic bottles. This practicum will focus on identifying a scalable bulk refill solution with our Brick & Mortar customers as key stakeholders.

The project will focus on laundry detergent and build the recommendation so that it can be proliferated across the rest of SVG's product lines.

**Project Title** – *Using Mobile Network Technology to Spur Economic Development in Rwanda*

**Host** – *Vanu, Inc.*



Vanu Inc. is a cellular network technology company that creates connectivity solutions for locations that have historically been a technological and cost prohibitive challenge to cover. Headquartered in Lexington MA, with offices in India and Rwanda, the company was born out of groundbreaking research in software radio technology at MIT. It now aims to serve the 1.2 billion people that do not have connectivity and the half of the world's population that does not have access to the internet.

The purpose of the practicum is to develop a "business in a box" that would profitably and sustainably provide coverage solutions to remote populations in Rwanda with a suite of services for the wants and needs of identified regions. This effort will be done in partnership with a local entrepreneur, and customized to the unique entrepreneurial landscape of Rwanda. Because traditional mobile network operators cannot expand coverage solutions to remote markets due to the economics of conventional cellular solutions and business models, SI-MBA students will be working to address this gap in coverage using Vanu's unique combination of technology and business model innovations.

**Project Title** – *Establishing a Firm-Wide ESG Investment Policy*

**Host** – *FIS Group*



FIS Group is an investment management firm that provides customized "manager of managers" investment solutions for institutional investors.

The foundation of the practicum with the FIS Group is to assist the firm in establishing a firm-wide ESG (Environmental, Social, and Governance) Investment Policy Statement (IPS) that reflects the core values of its investment mission from both an investment and analytics perspective. This policy

will cover a general firm overview as well as all areas of the business (Piedmont Investment Advisors, FIS Emerging Manager of Managers, and Aapryl). ESG is an emerging asset class that promotes sustainable and ethical business practices. The goal is to improve the firm's risk management framework by integrating an ESG policy, which ultimately encourages the firm to identify risks related to ESG, while also identifying positive returns. All five SI-MBA students will work collaboratively on the IPS, which will be a living, dynamic document throughout the duration of the practicum. In addition, SI-MBA students will assist the investment advisors in developing ESG portfolios to be used as part of an overall ESG investment strategy.