
DEPARTMENT OF SUSTAINABLE LIVING

FACULTY

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INTRODUCTION

The Department of Sustainable Living offers programs at the leading edge of sustainability. In these programs, students learn the most up-to-date knowledge and gain hands-on, practical experience in applying what they learn. Sustainable development is a concept typically referring to entire nations or broad geographical regions. When sustainable development is applied to local communities, the critical problems we face are fundamentally those of human consciousness. They arise when people do not use the full potential of their creativity and intelligence and, as a result, violate Laws of Nature.

Maharishi University of Management is the first university in the world to expand the scope of sustainable living to include the knowledge of how to live in accord with Natural Law — how to avoid creating problems in the first place. This can be done only from the level of consciousness itself. In our study of consciousness we realize that the keys to solving puzzles in nature are the keys to our own consciousness. It is through developing awareness of the true connection between humans and their surroundings that we will see lasting progress in sustainability and the quality of the environment.

The Sustainable Living major builds an understanding of how to design and maintain communities that meet the needs of people and the environment so abundantly that they function indefinitely. It involves knowledge of the ecology of living systems with implications for sustainability in the areas of technology, agriculture, architecture, and

landscape design, as well as in personal growth and evolution, social interaction, and sustainable business practices.

Ultimately, sustainability rests on a solid foundation, and scientific advancements depend upon the effective development of scientists of each age. Scientists working in the fields of environmental science, agriculture, and biology use a variety of techniques to explore nature and the responses of natural systems to natural and human influences. Each new angle of exploration uncovers some new understanding of the Laws of Nature governing living things. The new knowledge can then be applied to make improvements in agricultural practices or management of the environment. Through study of applied life sciences, students come to appreciate the practical value of this knowledge in enabling humans to be the best possible custodians of the earth.

Students in this major must take at least 24 credits in core courses, 24 credits of eligible electives, and 8 credits in a summative project.

Programs Offered

- B.S. in Sustainable Living, which prepares students for careers in sustainable community development and environmental coordination, or further study and research
- Minor in Sustainable Living, which provides students with a practical foundation for understanding the principles and practices of environmental design for communities

SPECIAL FEATURES

- In response to critical pressure on our planet's natural resources, emphasis is on preparation in skills and knowledge that support the development of sustainable environmental practices, particularly at the community level.
- Students can earn up to 16 credits of internships in on-the-job training in sustainable agriculture, the building trades, environmental organizations, green business, and many other venues that provide practical experience in selected areas of interest.
- Academic credit may also be earned for successful completion of professional certification courses in Building Biology and Permaculture Design, as well as for Resnet Energy Rater Training and AutoCADD.

DEPARTMENTAL REQUIREMENTS

To graduate with a B.S. in Sustainable Living, students must successfully complete all general requirements for the bachelor's degree. (Please refer to "Degree Requirements" in "Academic Policies.")

Graduation Requirements for the Bachelor of Science Degree in Sustainable Living

Note: Those who began the SL degree before fall 2009 have slightly different requirements; see your advisor

1. MATH 170 Mathematics for Sustainable Living, MATH 161 Functions and Graphs I, or MGT 314 Statistics for Business and the Environment.

The requirements for the major are 56 credits of course work as follows:

2. 24 credits of core courses

- SL—G202 Critical Thinking
- SL—B101 Sustainability, Buildings and the Built Environment
- SL—G201 Ecology
- SL—E101 Energy and Sustainability
- SL—G101 Permaculture Design
- SL—P101 Global Sustainability

3. 24 credits of electives

Including at least 4 but no more than 16 credits of SL Internship. Students can spread out their elective credits over any of the elective courses, or they can concentrate four of them in SL tracks. (Note that there is a limit of 16 credits of internships plus directed studies towards an undergraduate degree. Students can take additional credits of internship, but it won't count toward their degree.)

Remainder of elective can be any SL courses, or from the following other courses:

- MC 260 Digital Arts for Sustainable Living
- MGT 200 Principles of Business Success
- MGT 432 Entrepreneurship Project
- FA 201 Art in Nature
- FA205 Principles of Design
- MC 383 Web Design and Web Animation
- MVS 240 EEG, Brain, & Enlightenment
- MVS 309 Fundamentals of World Peace
- LIT 370 Literature and the Environment

- FA 460 Design and Sustainability Seminar
 - FA 461 Design and Sustainability Studio
4. 8 credits Sustainable Living Senior Project
A summative project that will apply concepts and skills learned in other Sustainable Living courses.
 5. Maintain a 4' x 4' Garden Plot in the Student Garden for One Growing Season
 6. Pass Senior Comprehensive Exam on Sustainable Living

Graduation Requirements for the Minor in Sustainable Living

To graduate with a minor in Sustainable Living, students must complete 20 credits in the Sustainable Living core courses from the following:

- SL—G102 Consciousness and Sustainability
- SL—G402 Green Leadership Adventure
- SL—G202 Critical Thinking
- SL—B101 Sustainability Buildings and the Built Environment
- SL—G220 Environmental Planning and Landscaping
- SL—G201 Ecology
- SL—E101 Energy and Sustainability
- SL—A101 Organic Agriculture
- SL—G101 Permaculture Design
- SL—P101 Global Sustainability
- SL—G350 Plant Biology
- MGT 402 Managing for Sustainability

COURSES

Conversion Table for Old/New Sustainable Living Courses

Sustainable Living (B.S.) - Courses by Track

Agriculture Courses SL-A

Old Course Number	New Course Number	Course Name
BIO 338	SL-A101	Organic Agriculture
SL 290	SL-A201	Season Extension
SL 274	SL-A301	Living Soil
SL 275	SL-A401	Planning a Sustainable Farm

Built Environment Courses SL-B

Old Course Number	New Course Number	Course Name
new	SL-B101	Sustainability, Buildings, and the Built Environment
SL 328	SL-B201	Natural Building
new	SL-B202	Ecocities
SL 326	SL-B301	High Performance Green Building

Energy Courses SL-E

Old Course Number	New Course Number	Course Name
SL 419	SL-E101	Energy and Sustainability: The Energy Basis of Humans and Nature
SL 420	SL-E201	Renewable Energy Technology 1: Solar, Wind, Water
New	SL-E202	Renewable Energy Technology II: Biomass, Geothermal, Fuel cells, Batteries, Power Electronics, Transportation technologies, other misc energy conversion pathways
New	SL-E301	Modeling and Monitoring Energy Flow

Fundamentals of Sustainability Courses SL-F

Old Course Number	New Course Number	Course Name
SL 333	SL-F151	Deep Ecology

SL 334	SL-F305	Spirituality and Sustainability
SL 331	SL-F310	Social Justice and Sustainability
SL 335	SL-F401	Philosophies of Sustainability

Policy Courses SL-P

Old Course Number	New Course Number	Course Name
BIO 405	SL-P101	Global Sustainability
New	SL-P202	Policy for Food Security
SL 421	SL-P302	Energy Policy for Sustainability
SL 332	SL- P404	How to influence Policy

General SL Electives and Core Courses SL-G

Old Course Number	New Course Number	Course Name
SL 9101/ BIO 341	SL-G101	Permaculture Design
SL 9120/SL 411	SL-G109	Natural Beekeeping
SL 320	SL-G110	Sustainable Woodworking
SL 412	SL-G111	Basic Training Becoming an Organic Inspector
SL 329	SL-G130	Materials, Tools, and Methods for Sustainability
SL 428	SL-G139	Sustainable Living Workshop
BIO 375/SL 6196	SL-G140	Earth Systems
SL 210	SL-G150	Ideal Human Relationships
BIO 260	SL-G195	Living Systems
SL 327	SL-G200	Building Biology
BIO 317	SL-G201	Ecology
SL 215	SL-G202	Critical Thinking
BIO 322	SL-G203	Plant Taxonomy
SL 422	SL-G204	Solutions to Climate Change
New	SL-G205	Trees and Sustainable Forestry
SL 280	SL-G210	Artisanal Foods and the Slow Food Movement: Case Studies in Alternatives to Economic

		Globalization
SL 350 SL 9260	SL-G220	Environmental Planning and Landscaping
SL 225	SL-G225	Applied Systems Thinking
SL 398 SL 9270	SL-G230	Sustainable Living Internship
SL 9220	SL-G240	Exotic Tropical Fruit Production
SL 9210	SL-G250	The Art and Science of Fruit Culture
SL 423/SL 9180	SL-G260	Energy Auditing
SL 9130	SL-G270	Design, Innovation, Sustainability
BIO 328/ SL 6190	SL-G280	Ethnobotany
SL 352	SL -G298	Ecovillages and Intentional Communities
SL 285	SL-G300	Local Economy Networks
SL 348 / SL 9250	SL-G310	Sustainable Landscape Architecture
SL 418/SL 9275	SL-G320	Building a Bio-diesel Co-op
SL 324	SL-G324	Basic AutoCAD
SL 349 / SL9280	SL-G330	Campus Sustainability and the AASHE Conference
SL 9300. SL 426	SL-G340	Economics of Sustainability
BIO 250	SL-G350	Plant Biology
SL 353	SL-G353	Sustainable Water Resource Management
SL 355	SL-G355	Earth Materials
SL 445	SL-G370	Environmental Law
BIO 380	SL-G380	Biology Research
SL 399	SL- G399	Directed Study
SL 410	SL-G410	Sustainable Living Certification
SL 429	SL-G400	Sustainable Living Project Prep
SL 430	SL-G401	Senior Sustainable Living Project

SL 202	SL-G402	Green Leadership Adventure
Math 170		Math for Sustainability

100-Level Track Courses

SL—A101 Organic Agriculture: Nourishing Civilization through Production of Food Based on Features of Natural Ecosystems — Nutrient Recycling, Biodiversity, Maintenance of Healthy Soils, and Full-Cost Accounting

This course will explore how aligning agriculture with Natural Law can be accomplished using the basic principles of Maharishi Vedic Organic Agriculture such as recitation of Vedic sounds at all stages of food production and the use of Maharishi Jyotish programs to determine the optimal times to plant, perform cultivation techniques, and harvest crops. It also includes general principles of organic agriculture production, such as transplanting, irrigation, fertility, pest management, harvest, storage, marketing, and environmental influences. Specific management requirements for important vegetable and field crops will also be discussed. Students spend approximately half of their time in class learning principles of vegetable production and half of the time applying their knowledge and gaining practical experience in the University’s vegetable gardens and greenhouses or other area organic farms. (4 credits)

SL—B101 Sustainability, Buildings and the Built Environment

The built environment consists of all the things that humans build: buildings and the rural, suburban, and urban context in which they are placed. Buildings, the cities they are placed in, and the transportation systems that connect them are the biggest things that humans build. Designing and building them sustainably is one of the greatest challenges facing humanity. This course gives an overview of issues of sustainability in the built environment and the developing solutions –high performance solar powered buildings, natural building, the ecocity movement, reuse of existing structures, urban agriculture, managing water in the urban landscape, turning wastes into resources. We’ll also explore how we can use the ancient ideas about orientation and placement of buildings and the design of cities from Maharishi Stapahtya Ved in the design of the contemporary sustainable built environment. The goal is to create a built environment, that, like the natural environment, is regenerative, giving back more than it takes. This course is one of six required core courses in the Sustainable Living program and is a prerequisite to other courses in the Built Environment track. (4 credits)

SL—E101 Energy and Sustainability: The Energy Basis of Humans and Nature

This course explores the role energy plays in sustainability and in the development of complexity and order in nature and in the human economy. Anything of economic value

comes from nature or from humans, and both require energy. Therefore, energy is critical to the economy. Energy inevitably loses its usefulness as it flows through manmade and natural systems. Sustainability is about regeneration and renewal of opportunity for future generations. Therefore, renewable sources of energy are essential for sustainability. Students will learn basic energy concepts and their application to sustainability and renewable energy systems. This course is one of the six sustainable living core courses and is required for all courses in the energy track. The course will include lecture, readings, films, guest speakers, field trips, and hands-on work. Lab fee: \$50. (4 credits)

SL—F151 Deep Ecology

The main argument in environmental ethics is between anthropocentric (human centered) and non-anthropocentric ways of being in the world. For people who advocate non-anthropocentric philosophies, it is of utmost importance for the human species to begin to behave in less selfish ways. Deep Ecology is the main non-anthropocentric school of thought and though founded in the 1970s, it draws on sources as vast in time and discipline as Taoism, Native American religions, and Quantum Physics. This course will study the innovator of Deep Ecology, the late Norwegian philosopher Arne Naess, and trace the movement up to its current incarnations in America and elsewhere, specifically centering on the Transpersonal Ecology of Warwick For as it pertains to Maharishi's teachings. This course will spend time in nature with the earth as our teacher, culminating in a camping trip. Finally, the course will show the close correlation of Deep Ecology with the concept of Natural Law and Maharishi's Vedic principles. Lab fee: \$100. (4 credits)

100-Level General SL Electives

SL—G101 Permaculture Design

Permaculture Design is a system for rethinking and redesigning of every aspect of human endeavor in terms of sustainability. As such, it is a cross-disciplinary design system that involves architecture and building, agriculture, energy, urban and city design, economics and livelihoods, water, and the aesthetic integration of all of these in human settlements. On successful completion of the course you will receive an internationally recognized certificate. The basic principles of permaculture design were developed by integrating the observation of natural systems, traditional indigenous wisdom, and modern scientific and technological knowledge by David Holmgren and Bill Mollison. Through lecture, discussion, observation, field trips, hands-on learning, videos, slide shows, and handouts, students gain the practical skills and theoretical knowledge to design and implement sustainable systems in harmony with the natural world so participants can understand and apply these methods and skills to their home property and local community. Participants will learn principles and methodologies of sustainable design, how to read the landscape's strategies and tools for urban and rural homesteads, food forests and

orchards, greenhouse operation, natural building and alternative energy techniques. This is a foundation course for the entire SL program. Lab fee: \$50. (4 credits)

SL—G102 Consciousness and Sustainability – Connecting Our Continued Existence to the Deepest Levels at Which Nature Operates

Our current way of life has produced unsustainable buildups of pollution, depletion of natural resources, overpopulation, and economic and social distress. If not rectified soon by human-directed correcting mechanisms, our whole system will be corrected by nature, and civilization will collapse. So far, application of mechanisms such as environmental education and legislation, ever more advanced “green” technologies, and global eco-summits have not been enough to pull us back from the brink. Therefore, raising consciousness has emerged as the so-far missing imperative that will bring about true sustainability. But what is consciousness? How can the various definitions of it from different philosophical and spiritual traditions be brought together in a way that will engage as many people as possible? Is consciousness a fundamental driver of sustainability? If so, what are the mechanics by which it will generate a sustainable world? These and more are the questions that will be addressed, and, with co-creative efforts from students, answered in this course.

SL—G109 Natural Beekeeping

Organic honeybee keeping is an important art and science of sustainable living, and even more so today. Students will learn about the Biodynamic beekeeping method, based on Rudolf Steiner’s teaching, which is holistic method that emphasizes the well-being of the bee colony as a super organism and its natural life cycle, rather than maximizing honey and pollen production. The first three days are taught by Gunther Hauk, who has over 30 years of experience in this type of beekeeping and is the founder and co-manager of Spikernard Farm, a 610-acre honeybee sanctuary in Illinois. Students will learn how to set up and manage a small Biodynamic apiary, assemble hives, become familiar with special terminology and practices, harvest honey, setting up an organic certifying agency, and more. (4 credits)

SL—G110 Sustainable Woodworking

In this hands-on course students will learn the basics of working with wood. Safety will be a high priority as they learn how to use power and hand tools, techniques for gluing and joining wood, and sharpening. They will also learn tree identification, the uses for different woods, and the structure of the living tree and how it relates to the creation of wooden structures, both solid and plywood. The course will also cover sustainable ways to grow, harvest, and dry woods, and will include field trips to lumber mills. Overall, this class will teach students to be comfortable with the basics of working and designing with

wood and to understand which environmental factors to consider when planning woodworking projects. Lab fee: \$40. (4 credits) *Prerequisite:* consent of instructor

SL—G111 Basic Training in Becoming an Organic Inspector

Learn the basics of performing an Organic Inspection from a current Organic Inspector who has conducted over 2000 organic audits in the last twelve years. Organic Inspectors audit producers of food and other consumable goods to ensure production processes genuinely follow Organic Standards as mandated in the USA, Japan, Canada, and the European Union. This Course will include travel to conduct two mock audits: one Process Production and one major Distributor of Organic Foods. (2 credits)

SL—G140 Earth Systems: How Global Geo-Physiology Shapes the Evolving Biosphere, Driven by Its Internal Structures and Processes and Interacting with Life, Air, and Water

In this course we explore Earth, a dynamic system evolving since its birth 4.6 billion years ago (deep time). Earth is a whole greater than the sum of its parts — rock, water, air, and life — subsystems that exchange matter and energy and pulse in cycles, powered by thermal energy from Earth's interior and by radiant energy from the sun. These inner and outer forces power Earth's living surface in the same way that we experience life as a balance between our inner desires and outer demands from society. Plate Tectonics explains how the interior of the Earth convects, moves surface plates along three types of boundaries, and shapes the planet's surface, a unifying paradigm for mitigating natural disasters (e.g., volcanoes, earthquakes, tsunamis), exploiting mineral and energy resources, and understanding the advent and evolution of life. At the cross roads of climate research, classical geology, and modern genetics, Snowball Earth narrates the tale of scientists developing a theory that explains why the Earth completely froze over and how these climate disasters may have triggered the evolution of life. To test the Snowball hypothesis with hands-on projects, we take a 10-day field trip to Canada and explore unique island ecosystems for their geologic features (rocks types, folds and faults, volcanic conduits, exploitable resources, glacial scouring and deposits, springs, etc.). Field projects stimulate powers of observation, spatial reasoning, 3 visualization, and 4D synthesis — life skills essential to sustainable living. In a final paper, students integrate their fieldwork with the readings and themes of sustainability. Lab Fee: travel Expenses, updated yearly. (4 credits) *Prerequisite:* passport: trip to Canada

SL—G130 Materials, Tools, and Methods for Sustainability

This course will provide students with a comprehensive background in the nature and properties of our planet's material resources and how they may be used in sustainable and ecologically friendly ways. Topics covered will include: identifying different types of wood and knowing the best types for various purposes (e.g., why hickory is best for tool

handles and cedar for shingles), understanding the differences between different types of metals and knowing when and where to use them (e.g., why it might be a bad idea to use brass next to aluminum), becoming expert in the use of tools, measuring instruments, methods of fastening and joining things, planning projects, and discussing the role of fine craftsmanship and consciousness-imbued goods in the coming age. Lab fee: \$60. (4 credits)

SL—G139 Sustainable Living Workshop: Transforming Natural Law into Useful Application

Manifestation of sustainable methodologies for immediate use is the purpose of this repeatable course. Students will work individually or in teams to build and implement technologies such as biodiesel production, photovoltaic panels, hydrogen electrolyzers, biomass heating units, methane digesters, or fuel cells. Projects can also include assisting with sustainable building construction, or production of websites or videos to display real-time building/performance indicators. (4 credits) Can be repeated for credit.

Prerequisite: SL—G101

SL—G150 Ideal Human Relationships: The Basis of Harmonious Relations is Connecting Self-Knowledge with the Experience of the Self in Others — Giving is the Basis of Receiving

From friendships to business partnerships, marriages to parent-child connections, society is a network of relationships. This class will explore the various categories of human relationships and how each can be mutually rewarding and sustainable. Students will learn how to draw on their own inner reservoir of energy to give the maximum to others without being overshadowed by circumstances. We will also look at conflict resolution and how to turn perceived enemies into friends. (4 credits)

SL—G195 Living Systems: How Life’s Dynamic Intelligence Applies the Principles of Biochemistry, Cell Biology, and Genetics to Uphold Self-Organization, Maintenance, and Evolution of Life

Fundamental to all life are basic functions that uphold self-organization, maintenance, and evolution. This course covers aspects of biochemistry, cell biology, genetics, and evolution, with emphasis on the expressions of intelligence, order, and integration found at different levels of biological organization. (4 credits)

SL—G200 Building Biology Learning to Restore the Balance between Nature, Ourselves, and the Built Environment Are sustainable and green building practices always healthy?

Not necessarily, as students will learn in this course, which examines the link between building practices and occupants’ health and well-being. Founded in Germany over 30

years ago, Building Biology not only encompasses sustainable and green practices, but also goes beyond them. It focuses on “building for life,” or how to optimize living conditions by applying healthy building and remodeling principles to living spaces. Students will find out how current construction practices impact the health of occupants and will gain skills to identify, analyze, and solve problems dealing with electromagnetic radiation, high- frequency radiation, indoor air quality, and water quality. They will also learn about natural building and remodeling practices through home inspections, case study reviews, and teleconferences with Building Biologists from around the country. The course looks at healthy buildings from different perspectives: 1) elements– how air, water, matter, and energy impact the indoor environment, including health risks and remedies, 2) design — what design features promote a healthy building, and 3) standards — applying Building Biology Healthy Home Standards. (4 credits)

200-Level Track Courses

SL—A201 Season Extension

Learn how to extend the season growing, harvest produce throughout the winter and start transplants using unheated hoopouses. Topics include: choosing the hoopouse location, hoopouse design, hoopouse layout, costs, growing transplants, natural insect and disease control in hoopouses, nutrition, food system sustainability, and more. Class will include field trips to local hoopouses and some hands on activities. (4 credits)

SL—E201: Renewable Energy Technology I: Solar, Wind, Water

On earth, solar energy is the only energy source available to renew and offset the inevitable decline in usefulness as energy flows through manmade and natural systems. Sustainability is about regeneration and renewal of opportunity for future generation, and therefore switching from fossil fuels to solar energy is essential for sustainability. Direct solar (thermal and photovoltaics), wind, and flowing water are the core technologies necessary to power a sustainable economy. This course gives students the theoretical and practical background necessary to design and evaluate renewable energy technology that use solar energy directly (solar thermal and PV) and solar energy in the form of wind and flowing water. The course will include lecture, readings, films, guest speakers, field trips, hands-on work, and a team project. (4 credits) *Prerequisite:* SL—E101, MATH 170, or permission of Instructor

SL—B201 Natural Building

Natural building is the art and science of using lightly processed, natural materials to create beautiful, durable, energy efficient structures. Students will learn how to combine traditional materials with contemporary ideas about sustainability. Topics covered include the design process, materials and methods (straw/fiber, clay, earth, stone, wood and their combinations).building science for natural building, air and moisture flow,

energy considerations., siting and zoning Course will include hands on work in a variety of materials, and may include the construction of a structure. Lab fee: changes yearly. (4 credits) *Prerequisite:* SL—B101

SL—P101 Global Sustainability

Many believe that we currently face a real possibility of collapse in the global environment that supports human civilization and the Earth's other living beings. How much is myth and how much is truth? How do we set about structuring a sustainable living environment that can be maintained on a global scale for all future generations? This course is about the big picture that drives the global sustainable living agenda. It provides a broad perspective on the problems we face as a species. We study what can and should be done to transform the current trends effecting population growth, biodiversity, climate, energy supply and consumption, food and water security and other threats to sustainability. We explore the shift in mind set or consciousness that is needed to take us from regarding the environment and an expendable resource to treasuring it as an entity with which we must live in harmony. This is the policy track core course. Lab fee: \$40. (4 credits)

SL—B202 Ecocities

Cities are the biggest things that humans build. The car centered urban, suburban, and rural patterns of human settlement that have developed in North America are a byproduct of the era of cheap fossil fuels, and waste resources and human energy. This course will explore the emerging principles of sustainable city design. Topic will include historic perspectives, the ecocity movement, the effect of density on sustainability, land use and zoning for sustainability, new urbanism, urban agriculture, and more. (4 credits)

Prerequisite: SL—B101, or permission of instructor

SL—P202 Policy for Food Security

Food security is possibly the most critical sustainability issue facing humanity in the short to medium term. As the world's population grows and developing countries move up the food chain, demand for food is growing fast. At the same time government policies for food production, distribution and retailing tend to favor the unsustainable practices of agribusiness. This course studies the way forward to create state, national and international policies that can deliver plentiful, nourishing, non-toxic food for the whole world, whilst also enhancing biodiversity. (4 credits)

SL—E202 Renewable Energy Technology II: Biomass, Geothermal, Fuel cells, Batteries, Power Electronics, Transportation technologies, other misc energy conversion pathways

This course continues the exploration renewable energy pathways and the technologies that allow their utilization that is begun in Energy 201. Energy Technology 201 covers the core technologies of solar electric, solar thermal, and wind. This course covers biomass, geothermal energy, fuel cells, batteries, power electronics, transportation technologies, and other misc energy conversion technologies. On earth, solar energy is the only energy source available to renew and offset the inevitable decline in usefulness as energy flows through manmade and natural systems. Sustainability is about regeneration and renewal of opportunity for future generation, and therefore the use of solar energy is essential for sustainability. The radiant energy of the sun transforms into a wide variety of forms – wind, flowing water, biomass, heat, geothermal - before it eventually re-radiates back into space as low temperature heat. This course continues the exploration of technologies for creating a renewable energy based economy. It is recommended that students take energy 201 first, but it is not required. The course will include lecture, readings, films, guest speakers, field trips, hands on work, and a team project. (4 credits) *Prerequisite:* SL—E101, MATH 170, or permission of instructor

SL—G204 Solutions to Climate Change

Climate change is considered by many to be one of the key threats to a sustainable future. Yet few people study this fascinating subject in any detail. In this course students learn the latest developments in the basic science and facts of climate change. Contentious areas and ranges of opinion will be evaluated in their socioeconomic context and a full range of possible solutions to climate change will be studied, such as: elevation of world consciousness, improved global stewardship, increased energy efficiency, renewable energy, improved ecosystem management, agriculture and forestry. The course also addresses intergenerational ethics and economics along with mitigation of and adaptation to climate change. The main project will be for the class as a team to design their own package of solutions. (4 credits)

SL—G205 Trees and Sustainable Forestry: Cherishing and Managing the Earth's Largest Organisms

It's hard to imagine life without trees. Not only do they enhance and support human culture, they define everything from micro-ecosystems to biomes. Discover in this course how trees evolved, how they grow and produce wood, and how they form partnerships with myriads of other organisms. Become skilled at identifying trees by their leaves, flowers, bark, and winter twigs. Learn how to prepare herbarium sheets of tree leaves, create your own bonsai tree to take home, and even how to climb trees. Find out how trees work collectively as forests – their biodiversity, structure, and ecology as well as the

best ways to manage them sustainably for their intrinsic nature while providing needed lumber, recreation, and aesthetic value for human use. To illustrate this knowledge, you will enjoy field trips to local forests as well as the Missouri Botanical Garden and the Shaw Nature Reserve outside St. Louis. Finally, you will gain deep insights into the mystique and spirituality of trees, and how great authors have appreciated trees in literature. Altogether, you'll come away with a much richer awareness, practical knowledge, and appreciation of trees and forests. (4 credits)

200-Level General SL Electives

SL—G201 Ecology: Observe How Living Organisms Maintain Perfect Orderliness in Their Physical Environment by Efficient

This course integrates the core principles and practical applications of ecology from the perspective of human consciousness. Students will learn how the Laws of Nature evolved the biosphere to provide a support system for the miraculous complexity of life. They will use their deep experience of consciousness to appreciate the power and majesty of nature, the primal forces that manifest creativity and intelligence in the universe. The course will expose the processes that make life what it is: so much more than a series of intricate, dynamic structures interlinked through constant flux and transformation. The course covers ecosystems functioning, speciation and interactivity, social interaction, natural selection, and adaptation in nature. Lab fee: \$132. (4 credits)

SL—G202 Critical Thinking: Accessing the Field of Pure Knowledge and Infinite Organizing Power as the Basis of Action, Achievement, and Fulfillment

Effective thinking is the extreme opposite of jumping to conclusions. This course will teach students to analyze a situation and understand its circumstances. They will learn to focus on the most useful information and then use it in a fair and logical way. The class will also explore argument analysis, media literacy, and legitimate alternatives to Western “rational” thought. Much of the class time will be devoted to exercises that center on important issues in the sustainability movement as well as in one’s own life. Lab fee: \$35. (4 credits) *Prerequisite:* WTG 192

SL—G203 Plant Taxonomy: How the Description, Naming, Identification, and Classification of Plants is Grounded in Their Intelligence and Evolution

The classification of plants ultimately makes use of all that is known about their structure, physiology, genetics, and ecology to arrange them into a logical system for identification and study. This course, which emphasizes the local flora, develops skills in observation and interpretation to name, identify, and classify vascular plants according to evolutionary relationships. (4 credits)

SL—G210 Artisanal Foods and the Slow Food Movement: Case Studies in Alternatives to Economic Globalization

Artisanal foods are lovingly handcrafted with traditional methods, and the Slow Food movement promotes the concept as a response to the fast food industry. More than just preparing food slowly, artisanal food is all about quality, attention to detail, uniqueness, avoidance of synthetic ingredients, minimal processing, and sustainability in a way that enhances the pleasure and sensuality of life. This course will explore food and culture, the local production of foods that have a ‘taste of place’, and the creation of a local food economy. Using examples from France and Italy, it will examine public policy and marketing that makes artisan foods a normal part of life in these countries. Finally, students will cook and share meals that reflect what they are learning in class. The overall result will enrich their knowledge of quality prepared food as it applies to both the home and the commercial environment. Lab fee: varies year to year. (4 credits) *Prerequisite:* SL—G101, or permission of instructor

SL—G220 Environmental Planning and Landscaping: Applying Natural Law to Sustainable Landscapes to Integrate Energy, Economy, Transportation, Mass Culture, and Food Production Systems

A built environment should have the stability, flexibility, diversity, resilience, and beauty of a natural ecosystem. More than this, it should align our consciousness with all the Laws of Nature. Students will study the factors that go into a sustainable environmental plan, including consciousness, conceptualization, topography, climate, water management, energy, economy, transportation, mass culture, stakeholders, and food production systems. The course will combine classroom and project-based learning to ensure integration of the core principles and practical skills. Students will learn practical project management skills and create real environmental plans for existing tracts of land. The course will combine the use of Vedic and Permaculture principles to provide the ideal environment for people to grow in consciousness and fulfillment. (4 credits) *Prerequisite:* SL—G101

SL—G225 Applied Systems Thinking: Drawing on Total Natural Law to Organize Divergent Perspectives and Promote Interconnectedness and Unity

A systems approach can be helpful in everyday situations involving people and technology where it is hard to know what to do because of a complex web of conflicting views and needs, a high degree of interconnectedness, and a high degree of uncertainty. This course offers solutions not by providing formulas or rules to follow, but by providing ways to understand and systematically work with situations that develop over time. This ultimately means operating more in accord with Natural Law. Learning to think and act systematically thus requires a fundamental change in patterns of thinking and behavior, which this course is designed to create in the student. Since systems

concepts can be difficult to appreciate until applied in a variety of situations, the course structures proficiency in systems thinking by implementation of real-life solutions to problems of the student's choice. (4 credits)

SL—G230 Sustainable Living Internship: Experiencing On-the-Job Application of Natural Law at Environmental Places of Business

This course offers students the opportunity to work on farms, at green companies, or with environmental organizations and apply knowledge from the classroom to real-life situations where sustainability is at the forefront. Venues range from the MUM campus and farms to the Fairfield area, other areas of Iowa and out-of-state locations. While all internship credits may be taken at one location, it is advisable to distribute the internships among several places of employment to get the broadest possible experience, greatly adding to a student's sustainability credentials and post-graduate employment potential. (4 credits per month, maximum of 12 credits toward the Sustainable Living major)

Prerequisite: consent of instructor and the Academic Standards Committee and SL—G101

SL—G240 Exotic Tropical Fruit Production: Enjoying the Fruit of Tropical Laws of Nature

Tree crops have always been a major part of human diet and culture. Tropical fruits are especially rich in diversity and present us with almost unlimited potential for food, medicine, raw materials and crafts, beauty, and a wide range of environmental stewardship. This course, held in a 150-acre organic farm in Homestead, Florida, will explore every aspect of organic cultivation and marketing of exotic tropical fruits, the plant-animal-soil connection, ecological pest and disease control, and the trials and rewards of tropical farming. It also includes field trips to local fruit related sites such as the Spice Park, Fairchild Tropical Gardens, and Kampong, lectures by experts in tropical agriculture, and hands-on experience in the propagation, tending, and harvest of organic tropical fruits, vines and bamboo. Lab fee: changes year to year. (4 credits)

SL—G250 The Art and Science of Fruit Culture

Fruit science and culture is referred to as pomology, which is a congenial blend of science and art. This course will present the scientific principles and horticultural practices used in growing fruits and nuts in the temperate zone regions of the world. Students will learn to select fruit varieties that are well suitable for various ecological zones of the world. Thorough planning of the fruit planting will prove that “well begun is half done.” Students will learn how the horticultural practices used to achieve a productive balance in the fruit planting and the physiology of the fruit plants influence the cycles of rest and activity within the fruit farming system. Sustainable organic production practices will be highlighted. Students will create a scalable production plan

for fruit growing that will include all aspects of fruit growing including, suitable varieties for the mid-West region, plant protection practices for pest management using the organically approved list of materials (OMRI), and a flow of work schedule that includes moving the produce to market. (4 credits)

SL—G260 Energy Auditing

This is a course to certify students in energy efficiency home auditing, the most basic principle and foundation of sustainable living. Students will learn how to apply the principle of doing less and accomplishing more to home energy efficiency. Instruction will include class time, and hands on training of necessary equipment to do energy audits. Field training will include full energy audits from start to finish. Upon completion of the course, students will have a deeper understanding of the various systems within a home, and how they work together. The final exam will be the official Resnet “Field Rater” test. Lab fee: \$130 for book and field rater test fee. (2 credits)

SL—G270 Design, Innovation, Sustainability: An exploration of the creative process in the context of team hands on design/build of sustainable systems

This course will explore teamwork and the creative process through the design and construction of sustainable technologies. Students will work in teams to design, build, and implement technologies. Past projects have included biodiesel production, photovoltaic panels, hydrogen electrolyzers, biomass heating units, methane digesters, or fuel cells. We’ll look at case studies from famous design/build teams, like Lockheed’s Skunkworks team. Projects can also include assisting with sustainable building construction, or production of websites or videos to display real-time building/performance indicators. (4 credits)

SL—G280 Ethnobotany: How Indigenous Peoples Use Plants for Culinary, Spiritual, Medicinal, and Other Purposes to Maintain Traditional Connections with Natural Law

Plants have met a large proportion of man’s physical, emotional, and spiritual needs for ages and continue to do so today, though often in new and less obvious ways. The broad scope of such use is the subject of this course, covering not only food and shelter but also clothing, herbs and spices, ornamentation, medicine, soaps, cosmetics, rope, and rubber, as well as artistic and spiritual uses. (4 credits)

SL—G298 Ecovillages and Intentional Communities: Greening (and Challenging!) the Wider Culture

In this course students will learn about designing and living in ecovillages and intentional communities. Areas of focus will include how successful communities purchase, finance, and own property; internal community finances and community-based social enterprises;

ecovillages and the ecocity movement; the transition town movement; community group dynamics and & dealing effectively with community conflict; and “creating community where you live now” in existing neighborhoods or small towns. These areas will be explored through presentations from experts on living in and designing intentional communities, field trips, and a cumulative final group project. Lab fee: \$40. (4 credits)

300-Level Track Courses

SL—B301 High Performance Green Building: Shaping the Future with Regenerative Design

Fifty percent of the energy that flows through the US economy is used in buildings. Rethinking the design of buildings is a key part of sustainability. In this course, students learn the basic principles of designing and constructing climate responsive buildings that create more energy and clean water than they use. The emphasis will be on using commercially available conventional building materials, although natural building materials will be introduced (building with natural, lightly processed materials will be covered in Building 203: Natural Building) topics include the design process, building science, energy, air and moisture flow in buildings, health effects of material selection, building components (foundations, wall sections, roof systems, HVAC, siding etc), the development process, zoning, passive solar/renewable energy, and siting. (4 credits)

Prerequisite: SL—G101

SL—A301 Living Soil: Pure Consciousness Expressing Healthy Plants Through Vibrant Soil

Presenting a journey into the soil beneath our feet — the true “Last Frontier” — so close, yet so poorly understood. Delve into the world of the below ground and learn what all those billions of creatures are doing down there. Precisely because people did not understand healthy soil, “modern” chemical agriculture slowly but surely destroyed the very basis of healthy crop production. Learn how and why modern agriculture fell into the trap of chemical dependency, and how to grow bumper crops that contain nutrients in the forms, amounts and balances that humans require. This course will teach you which organisms are needed in soil for different plant species and in different climates, and how to see them for yourself and monitor their presence. You'll also learn how to easily grow your own soil biota and put them back into soil to replenish and revitalize gardens, agricultural fields, orchards, vineyards or your own back yard. Lab fee: \$60. (4 credits)

Prerequisite: SL—G101, SL—G350

SL—E301 Modeling and Monitoring Energy Flow

This course gives practical experience in using computers to model energy flow in buildings and renewable energy systems and in systems for monitoring energy flow. Students should have a good understanding of the physics of energy flow, energy flow in

building, and renewable energy systems. Software may include RESNET energy modeling software, Energy 10, and HEED. Energy monitoring systems will use Onset Computing energy monitoring hardware and Hoboware pro software. Building commissioning will be discussed. Energy modeling software is useful in the design phase of a project and is often required to establish benchmark performance for utility rebates and other incentives. Energy monitoring systems are useful for making building energy use visible to occupants, and for verifying and troubleshooting performance of energy systems. (4 credits) *Prerequisite:* SL—E101, MATH 170, or permission of Instructor

SL—P302 Energy Policy for Sustainability

Powering the future with intelligent energy policies is a key part of humanity's bid for sustainability. This course describes how such a future can be achieved. Students start by researching what policies are currently in place in different countries around the world. Then the course studies the potential of renewable energy to replace traditional energy resources. In the process we will identify the full range of issues surrounding the production, transportation, and consumption of energy globally. This will include reviewing issues concerning social acceptability, environmental impact and risk, and economics. Through the use of case studies and critical thinking, along with a special focus on Iowa, students will also identify and study the ways governments have begun to change local, regional, national, and international policies about these issues. The final project allows individual class participants to research a special area of energy policy that interests them most. (4 credits)

SL—F305 Spirituality and Sustainability

The goal of this course is to expose students to the thinking of some of the leaders in the field of sustainability who feel that there is an important relationship between spirituality and sustainability. Some of these thinkers go so far as to say that this relationship is essential to the project of sustainability so that without understanding spirituality there is no sustainability. This course will explore the relationship of spirit and sustenance in a variety of ways, through readings, field trips and speakers. By interacting with people outside of our community, sometimes in real world situations, students will have the opportunity to see how a person's belief system affects their idea of sustainability and in turn their actions. (4 credits)

SL—F310 Social Justice and Sustainability

Is it possible to have a grossly inequitable society and still have it be "sustainable?" Is "sustainable development" really sustainable if it is undertaken within a context of economic injustice? Are modern western societies and globalization just a new face on an old, unsustainable theme: empire? We will attempt to answer these questions, and raise several others, in this course. This class will explore concepts like "environmental

racism" and disciplines like "eco-pedagogy" as it looks at the role that social justice should play within the project of sustainability. We will read authors like Vandana Shiva, David Orr, and Paulo Freire. Also, students will conceive and direct a project that addresses social justice issues within the community of Fairfield. (4 credits)

300-Level General Electives

SL—G300 Local Economy Networks: Engaging Local Natural Laws to Establish a Strong Local Economy

Does an economy based on consumption of local production have a place in a world increasingly preoccupied with globalization? A growing number of economists think it does. This course will explore current thought about creating community wealth through the local provision of basic products and services such as energy, food, water, building materials, clothing, and artisan products. Students will research the local community to develop a wiki that showcases local economy solutions like the Buy Fresh, Buy Local campaign. This hands-on work, combined with the foundational knowledge of local economics, will thus equip them with the know-how for setting up a local network vital to maintaining a sustainable community. (4 credits) *Prerequisite:* SL—G101

SL—G310 Sustainable Landscape Architecture: Using the Techniques of Natural Law to Create a Functional, Sustainable Built Environment

The way our built environment looks and feels is a product of human consciousness as manifested through the design and layout of the individual elements of Natural Law. Using the MUM campus as a case study, you will learn how to implement the basic landscaping components of Maharishi Sthapatya Veda design in a way that minimizes the ecological impact of a site while maximizing its ecological value and aesthetic appeal. In the process, you will learn drawing techniques of the discipline, how to read a topographic map and use it to build a scale model, and how to choose appropriate trees and plants for specific locations and purposes. The result will be a deeper understanding of how to create environments that are efficient, beautiful, productive, and enjoyable in a sustainable way. (4 credits) *Prerequisite:* SL—G101

SL—G320 Building a Biodiesel Co-op

This hands-on course will cover three major aspects of building a successful biodiesel cooperative: 1) Finishing the construction of an energy-efficient passive-solar shed to house the operation 2) Setting up renewable energy systems such as solar hot water panels, heat exchangers, and off-grid solar PV 3) Setting up the biodiesel processor and learning how to make fuel from waste vegetable oil. Academic components of the course will include: titration and the chemistry of transesterification, economics, regulations and limitations of biodiesel co-oping, the diesel engine in theory and operation. The course will be limited to six students, with preference given to seniors and students with diesel

vehicles. Students will wear appropriate work clothing, especially protective footwear. Sunblock and/or broad-brimmed hats are a good idea for outdoor work. (4 credits)

SL—G324 Basic AutoCAD

Learn fundamental knowledge and skill to create and complete basic 2D drawings with AutoCAD®. Use drawing and editing tools, adding text and basic dimensions and plotting. This rapid-paced course is for anyone who plans to become a regular AutoCAD user and needs the fundamental skills to create, edit and dimension AutoCAD drawings. This course is ideal for those new to AutoCAD or those who have not used the software for a few years. No previous CAD experience is necessary. Some familiarity with Windows required, some drafting, design or engineering experience may be helpful, but is not required. Lab fee: \$35 (4 credits)

SL—G330 Campus Sustainability and the AASHE Conference

The most convincing college sustainability curriculum is the one students see manifested in the buildings and grounds of their own campus. To that end, students will use this course first to become thoroughly familiar with the sustainability features of the MUM campus, from restored prairies to geothermal installations to the compost system that recycles all dining hall food waste. Then they will prepare to attend the national conference of the American Association for Sustainability in Higher Education (AASHE). They will learn how to gain maximum benefit from the conference, agree on a full slate of talks they wish to attend, and listen to and critique talks by MUM faculty and staff who will be giving those talks at the conference. Then the class will attend the conference, listen to talks, and interview and network with campus sustainability experts and students from around the country. Upon returning to MUM students will present their experiences and findings in oral presentations to the rest of the class, followed by discussions about what was learned. Students with an exceptionally well-prepared talk, created well in advance of the course and approved by the faculty, may also give presentations at the conference. Lab fee: changes yearly. (4 credits) *Prerequisite:* SL—G101

SL—G353 Sustainable Water Resource Management: Water and Sustainability; Problems and Solutions to Water Quality and Scarcity Worldwide

Fresh water resources play a key role in any sustainable community and are pivotal to the success of long term sustainable development. In this course students will learn about the problems plaguing water resources worldwide and will acquire the skills to implement appropriate solutions. Students will learn how to put together integrated water management plans including analytic tools to assess water supplies and demands, analyze water qualities, and implement sustainable water management practices. These practices include water conservation, pollution protection, and the use of alternatives to fresh water

resources such as rainwater harvesting and wastewater reclamation. The course will also look into the local and global socioeconomic aspects associated with the world's water resources. Lab fee: \$65. (4 credits)

SL—G 355 Earth Materials: From the Ground to Sustainable Living

We extract resources from the Earth to grow food, make stuff, move things around, build cities, and harness the energy to do it all. Expanding exponentially, the human enterprise is not sustainable, unless it undergoes a new industrial revolution guided by how Earth systems work, by cradle-to-cradle principles, and by other expressions of natural law stimulated by rising collective consciousness. In lectures, labs, group projects, field trips, and individual presentations, we explore a variety of materials (crystals & rocks, glass & ceramics, metals & alloys, concrete & composites, etc.), how and where raw materials are concentrated by Earth systems, the history of their use by humans, global systems of extraction, processing, trade, and recycling, and especially the creative forefront of reinventing — the emergence of sustainable solutions driving the green revolution. Lab fee: \$40. (4 credits)

SL—G340 Economics of Sustainability

Gain a conceptual understanding of economic sustainability and acquire specific knowledge and information needed to apply these concepts in your professional and personal life. A sustainable economy must be capable of meeting the needs of the present without diminishing opportunities for the future. Since all economic value is derived from either nature or society, a sustainable economy must continually renew and regenerate the “natural and human capital” from which it derived its “economic capital.” Sustainable capitalism may seem an oxymoron because today's neoclassical capitalist economy clearly is not sustainable. However, market economies provide the most efficient means of meeting our individual needs if nature and society are protected from economic exploitation. We have the collective ability and means to work together to provide the social and political restraints and incentives needed to ensure long run ecological and social integrity. Through hands-on experiences both on campus and in the community, students in this course will gain an understanding of how sustainable living creates the ethical and intellectual foundation for sustainable businesses, communities, economies, and societies. (4 credits)

SL—G350 Plant Biology: The Unity and Diversity of Plant Life — How Organisms from Bacteria to Fungi to Giant Redwoods Nourish, Enrich, and Integrate the Biosphere

How Organisms from Bacteria to Fungi to Giant Redwoods Nourish, Enrich, and Integrate the Biosphere Plants, the source of fixed energy for virtually all life forms, are the principal topic of this introductory course. The photosynthetic groups covered range

from cyanobacteria through phytoplankton and seaweeds, to bryophytes, lower vascular plants, gymnosperms, and the flowering plants. Non-photosynthetic bacteria, fungi and fungal-like protists are presented as the great integrators and recyclers of nutrients in the global biosphere. Some basic concepts in biochemistry, cell biology, membrane transport, anatomy, and plant ecology, are also included. The course provides a good foundation not only for more advanced topics in biology but also for agriculture. Lab fee: \$120. (4 credits)

SL—G370 Environmental Law: Connecting National Law with Natural Law to Protect the Environment from Global Warming, Pollution, and Resource Depletion while Creating Abundance for All Nations

From local regulations about water quality to global initiatives like the Kyoto Accord, the law is an important tool for regulating our use of the environment. During this course, students will become familiar with international treaties and protocols on global warming, pollution, and endangered species. The class will also study the key features of American environmental law including the Clean Air and Water Act, the Environmental Protection Act, and other current policies and regulations. Perhaps most importantly, students will understand the lawmaking process as a way to use the legal system to bring about positive change and build sustainable communities. (4 credits)

SL—G380 Biology Research: Self-Discovery through Research in the Life Sciences — How to Solve a Biologically Based Challenge in a Sustainable System through an Individual Research Project

Students enrich their knowledge with practical experience in the techniques of modern laboratory research. (4 credits) *Prerequisite:* consent of instructor

SL—G399 Directed Study

Prerequisite: consent of the department faculty
(variable credits)

400-Level Track Courses

SL—A 401 Planning a Sustainable Family Farm: Natural Law as the Basis of Intelligent Planning

Although farming, like any business, has to manage the uncertainties of the market, it also has to deal with unpredictable weather and biological factors such as pests. That's why intelligent planning is essential for success with a family farm, especially when it aims to minimize damage to the natural environment. Students will learn the basics of economic investments, farm assessment and inventory, and principles of planning, as well as what and how much to produce and how to produce it. In addition, they will be exposed to best management practices, investment evaluation, and the relationship

between margin, earnings, and costs. This foundational knowledge will enable them to plan a family farm with an elevated level of confidence. (4 credits) *Prerequisite:* SL—G101, SL—A201

SL—F401 Philosophies of Sustainability: Locating the Deepest Levels of Natural Law in the Foundations of Sustainable Thinking

This course will break down the meta-concept of sustainability into its constituent parts: its social, environmental, and economic aspects, as well as how the concepts of democracy, technology, and spirituality relate to sustainability. This course will start out with an overview of the sustainability movement as presented in the Sustainability Revolution by Andres Edwards. Supplemental readings will address aspects of the philosophies of sustainability left out by Edwards' summary, including anthropocentrism, capitalism, and others. Through films, reading assignments, lectures, and discussions, students will formulate their own definition of sustainability to make the abstract concept of sustainability practical to their everyday lives. (4 credits) *Prerequisite:* SL—G202

SL—P404 How to influence Policy

This is a practical course. The class will meet with legislators, lobbyists, officers in the US administration, top industrialists and campaign groups. The purpose is to learn what works to achieve big changes in policy for sustainability. The policies of governments, corporations and other organizations are incredibly powerful in shaping society's activities. Students will learn what policy is, how it is used and how they can influence it. We will look at the workings of the US and corporate governance, how policy is made, the different players involved and routes available to enable individuals and groups to bring change. We also look at the many career paths in the field of policy for sustainability. There will be field trip to Des Moines to meet with decision makers during their legislative session to present practical policies for a more sustainable future. Lab fee: \$30. (4 credits)

400 Level General Electives

SL—G400 Sustainable Living Project Prep: Planning Your Personal Contribution to Life in Accord with Natural Law

This course is devoted to preparing students for the Senior Sustainable Living Project (SL—G401). Students will meet with faculty to research, discuss, and plan the project to ensure that it will unfold as smoothly as possible. (4 credits) *Prerequisite:* Good academic standing and consent of instructor

SL—G401 Senior Sustainable Living Project: Applying Natural Law-Based Knowledge to Real-World Enterprises to Test Principles of Sustainable Technologies

In this final course you will apply what you have learned to a special senior capstone project. Under the guidance of faculty, you will design and implement some aspect of a sustainable community, using opportunities in the city of Fairfield, Maharishi Vedic City, Abundance Ecovillage (just north of Fairfield), or the Maharishi University of Management campus itself. The project may be an individual effort, or you may work together in small teams to produce a fitting tribute to the concept of Sustainable Living, one that will prepare you to take on real projects wherever you may choose to work. (4 credits) (Can be repeated multiple blocks for credit) *Prerequisite:* SL—G101

SL—G402 Green Leadership Adventure

This action-packed course will explore group dynamics and leadership in the context of adventure sports while providing visits to world-famous projects and institutions known for sustainable design. (6 credits)

SL-G403 Internship in Teaching Sustainability: How to Apply Natural Law to Teaching by Assisting with the Instruction of Selected Courses in the Sustainable Living Program

This course is designed to allow advanced undergraduate students of good academic standing the opportunity to assist an instructor in teaching a course in sustainability. It is especially recommended for those students who plan to go into a teaching career or who expect to help finance graduate work through teaching assistantships. In most cases it will involve helping the instructor with course planning and preparation, small discussion groups, homework and quiz grading. Some lecture and lab preparation and presentation may also be included as a teaching experience. (4 credits)

SL—G410 Sustainable Living Certification: Acquiring Training for Environmental Consulting and Certification of Natural Law-Based Operations and Buildings

As the demand increases for Natural Law-based technologies in the production of food, buildings, and other consumer goods, so does the demand for verification that acceptable environmental and health standards have been met during their production. That demand, in turn, calls for inspectors and consultants trained to critically examine these goods and services. This course offers the opportunity to acquire certification training in areas such as organic inspection, and Building (Bau) Biology. It can also include training in software competency such as Chief Architect. All of these certifications and competencies significantly enhance the student's credentials and employability in the field of sustainability. *Prerequisite:* consent of the instructor (4 credits)

SL-G411 Student Marketing Team: Providing Student Appeal Through Student-Based Marketing

This hands-on course is being offered in response to student desires for more non-traditional, project-based classes. The goal is to create a marketing mix — website, videos, copy and design for a brochure — for the SL department. It will enable students to use skill sets they've developed in previous classes — whether it's film, graphic design, business, or sustainability — in a collaborative project that has real world impact. In the process, students will be exposed to other disciplines that will foster an understanding of how they are interconnected. Most prominently featured are topics such as theories in social change, memetics, principles of design, the psychology of sustainable behavior, creating stakeholder buy-in, and video and web marketing. Through teamwork the class thus will fulfill the SL Department's mission of co-creation between students, staff, and faculty by incorporating students into the marketing process. For the students, the added result will be high-level, professional content for their portfolios that will greatly help to differentiate themselves in the competitive job market.