DEPARTMENT OF SUSTAINABLE LIVING

FACULTY

- David Fisher, Ph.D., Chair, Associate Professor of Botany
- Steven McLaskey, Ph.D., Assistant Professor of Biology and Agriculture
- Robert Keith Wallace, Ph.D., Professor of Physiology
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- Michael W. Lerom, M.S., Assistant Professor of Chemistry

INTRODUCTION

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.

The Department of Sustainable Living offers programs at the leading edge of sustainable living. 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 sustainable living 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 and sustainable business practices. Students in this major must take at least 24 units in core courses, 24 units of eligible electives, and 8 units 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 LEED Green Building Rating System, Building Biology, and Permaculture Design, as well as for software competency in Energy 10 and/or Chief Architect.

DEPARTMENTAL REQUIREMENTS

Entrance Requirements for Sustainable Living Majors

Before entering the Sustainable Living major, students must successfully complete College Composition II (WTG 152) as well as MATH 161 or MATH 170 or MGT 314 or MGT 424.

Graduation Requirements for the Bachelor of Science Degree in Sustainable Living

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.") The requirements for the major are 56 units of course work as follows:

24 units of core courses from the following:
- SL 215 Critical Thinking
- SL 220 Leadership and Team-Building
- SL 350 Environmental Planning and Landscaping
- SL 405 Ecology
- SL 420 Solar Energy and Engineering
- BIO 338 Organic Agriculture
- BIO 341 Permaculture Design
- BIO 405 Sustainable Global Environment

- MGT 402 Managing for Sustainability

24 units of electives from the following:
- SL 210 Ideal Human Relationships
- SL 275 Planning a Sustainable Family Farm
- SL 280 Artisanal Foods and the Slow Food Movement
- SL 285 The Local Economy Network
- SL 320 Sustainable Woodworking
- SL 330 Bio-Cultural Ethics
- SL 348 Sustainable Landscape Architecture
- SL 428 Sustainable Living Workshop
- SL 429 Sustainable Living Project Prep
- SL 445 Environmental Law
- BIO 250 Plant Biology
- BIO 322 Plant Taxonomy
- BIO 328 Ethnobotany
- BIO 375 Earth Science
- BIO 498 Internship in Agriculture
- MGT 200 Principles of Business Success
- MGT 203 Personal Finance
- MGT 425 Marketing Management
- MGT 431 Entrepreneurship
- FA 201 Art in Nature
- FA 205 Principles of Design
- FA 363 Web Design and Web Animation
- MVS 240 EEG, Brain, & Enlightenment
- MVS 309 Fundamentals of World Peace
- LIT 370 Literature and the Environment

In addition, students are required to complete at least 8 units of SL 430 Sustainable Living Senior Project, a summative project that will apply concepts and skills learned in other Sustainable Living courses.

Graduation Requirements for the Minor in Sustainable Living

To graduate with a minor in Sustainable Living, students must complete 20 units in the Sustainable Living core courses from the following:
- SL 215 Critical Thinking
- SL 220 Leadership and Team-Building
- SL 350 Environmental Planning and Landscaping
- SL 420 Solar Energy and Engineering
- BIO 338 Organic Agriculture
- BIO 341 Permaculture Design
- BIO 405 Sustainable Global Environment
- MGT 402 Managing for Sustainability
- SL 405 Ecology

COURSES

Sustainable Living Courses

SL 205 Physiology, Health, and the Environment: Maintain Perfect Health by Identifying Environmental Threats to Human Physiology and Learning How to Protect against Those Threats

Individual health is a microcosm of the health of the planet. To prepare students for creating a non-toxic, disease-free society, they will learn self-care. This course provides understanding of the different elements of the body and how to keep them balanced and strong. Health-care experts will teach useful information about one's own body as it relates to health, longevity, relationships, family, and career. Rather than an in-depth anatomical analysis of the body, the emphasis will be on practical information, including identification of environmental threats to human physiology, and how to protect against those threats. Maharishi Consciousness-Based Health Care, the world's oldest system of natural health care, will be prominently featured in the course. (4 units)

SL 210 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 getting drained or overshadowed by circumstances. We will also look at conflict resolution and how to turn perceived enemies into friends. (4 units)

SL 215 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 all its circumstances. They will learn to zero in on the most useful information and then use it in a fair and logical way. The class will also explore the difference between fundamental, primary, and secondary choices. Much of the class time will be devoted to exercises that center around important issues in one's own life. (4 units)

SL 220 Leadership and Team-Building: Awakening Inner Silence as the Basis of Unifying Individuals into Powerful Teams Directed by Strong Leaders

Living in a sustainable manner requires a special kind of creativity — the ability to solve long-standing problems and integrate diverse areas of life. This course will expand one's capacity for seeing new angles and finding innovative solutions. Students learn how to act in harmony with Nature's laws and thereby achieve maximal results with minimal effort. They will gain thorough understanding of the creative cycle of germination, assimilation, and completion, and at the same time, learn the gentle art of inspiring and

mobilizing others, including tools for motivating and harmonizing different personality profiles. (4 units)

SL 225 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 and which 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 units)

SL 275 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 inputs earnings and costs. This foundational knowledge will enable them to plan a family farm with an elevated level of confidence.

SL 280 Artisanal Foods and the Slow Food Movement: Returning to Real Food Based on Natural Systems of Preparation
Artisanal foods are lovingly hand-crafted with traditional methods, and the Slow Food movement promotes the concept as a response to 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.

SL 285 The Local Economy Network: 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.

SL 320 Sustainable Woodworking: Using Natural Law to Promote Knowledge of Creation and Safety in Working with Wood
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.

SL 330 Bio-Cultural Ethics: Preserving Cultural Integrity by Awakening the Field of Pure Consciousness as the Foundation of All Right Action
This course discusses the biological aspects of treating all people fairly regardless of economics, geography, or lifestyle. Is it ethical to genetically engineer a tomato and then sell it without informing the public? Is it appropriate to learn about medicinal herbs from native healers and then patent the active ingredients? Is it fair for the United States, with five percent of the world's population, to use 25 percent of the world's raw materials? Often questions of fairness extend to other life forms, and some issues are particularly difficult and nuanced: Damming waterways, for instance, generates clean, renewable energy, but it can also flood villages, upset ecosystems, and destroy fisheries. This class will teach students to think deeply and consider all sides of bio-cultural dilemmas, arriving at equitable, workable solutions. (4 units)

SL 346 Vedic Architecture and Green Architecture: Promoting Health and Harmony through Buildings Designed in Accord with Natural Law — Incorporating Intelligent Use of the Environment, Energy Efficiency, and Non-Toxic Building Materials
This course will examine the relationship of human beings to the buildings they create. We will look at the key principles of Maharishi Sthapatya Veda^{SM} design, as revived by His Holiness Maharishi Mahesh Yogi, including orientation, proportion, and spatial arrangement. The goal of this ancient science, to bring human life into accord with Nature's intelligence, will be the focus of this course. At the same time, we will look at

green buildings whose design allows them to draw on flows of renewable energy in their immediate environment. We will consider their beauty, functionality, and affordability, examining the materials used to accomplish these goals. The physics of energy and light flow will be reviewed, along with state-of-the-art methods for designing energy-efficient buildings and "tunneling through the cost barrier." Laboratory sessions will center on methods and software for modeling building performance. (4 units)

SL 348 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 M.U.M. 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.

SL 350 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, diversity, resilience, and beauty of a natural ecosystem. More than this, it should align our consciousness with all the Laws of Nature. This course will consider all the factors that go into a sustainable landscape, including consciousness, energy, economy, transportation, mass culture, and food production systems. The course will combine classroom and project-based learning to ensure integration of the core principles and practical skills with the Vedic perspective of life. Students will work in groups to design a fully sustainable eco-village for less than one thousand inhabitants. The course will combine the use of Vedic principles with "green" planning and development to provide the ideal environment for people to grow in consciousness and fulfillment. Students will learn how to combine the micro-environmental properties of a landscape with aesthetically pleasing structures that incorporate useful plants for managing rainwater and delivering perennial food crops. (4 units)

SL 398 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, green companies or environmental organizations and apply knowledge from the classroom to real-life situations where sustainability is at the forefront. Venues range from the M.U.M. campus and farms to the Fairfield area, other areas of Iowa and out-of-state locations. While all internship units 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 units per month, maximum of 16 units toward the Sustainable Living major)

SL 399 Directed Study
(variable units) Prerequisite: consent of the department faculty

SL 405 Ecology: Observe How Living Organisms Maintain Perfect Orderliness in Their Physical Environment by Efficient Use of Energy, Nutrient Recycling, Maintenance of Biodiversity, and Intelligent Self-Organization
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. Much of the course is project based, so students will spend time in the field or performing research aimed at adding value to real-world developments. The course covers ecosystems functioning, speciation and interactivity, social interaction, natural selection, and adaptation in nature. (4 units)

SL 410 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 LEED (Leadership in Energy and Environmental Design), 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.

SL 415: 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.

SL 420 Solar Energy and Engineering: Drawing on Nature's Creative Intelligence to Harness the Sun's Infinite Capacity to Power Homes and Workplaces, Transportation, and Industrial Production
This course will redefine the understanding of energy, heat, and power by studying state-of-the-art technologies that can generate and use energy from sources that are both renewable and sustainable. The inefficiency of our modern industrial society will be closely examined, with students learning to identify entropy in a system and find huge opportunities for improvements. Classroom sessions will also include films, slide presentations, demonstrations, presentations by students, and outside guest speakers. Besides lectures, films and demonstrations, the course will include field trips, a lab, and a project that will give students a chance to apply these technologies. Many classes will take place in a building that is powered by renewable energy, with students monitoring and operating the building energy systems. Each day, the design principles of systems based on renewable energy will be related to the Laws of Nature that structure our own awareness and govern the universe efficiently and automatically. Prerequisites: Math 170, Math 161, or MGT 314 (4 units)

SL 428 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 units, repeatable)

SL 429 Sustainable Living Project Prep: Planning Your Personal Contribution to Life in Accord with Natural Law
This course is devoted to preparing you for the Senior Sustainable Living Project (SL 430). You will meet with faculty to research, discuss, and plan the project to ensure that it will unfold as smoothly as possible.

SL 430 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 in the previous three years 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 units) (Can be repeated multiple blocks for credit)

SL 445 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 units)

Biology Courses

BIO 250 Plant Biology: The Unity and Diversity of Plant Life — 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 the physiology, genetics, anatomy, ecology, and evolution of plants are also included. (4 units)

BIO 260 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. Emphasis is placed on the expressions of intelligence, order, and integration found at different levels of biological organization. (4 units)

BIO 322 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 units) Prerequisite: BIO 250

BIO 328 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 units)

BIO 338 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

Only by aligning agriculture with Natural Law will poverty be removed from the world. This course will explore how this 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^{SM} 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 units)

BIO 341 Permaculture Design: Using Nature's Intelligence to Design and Maintain Cultivated Ecosystems — How to Read the Landscape's Strategies and Tools for Urban and Rural Homesteads, Food Forests and Orchards, Greenhouse Operation, Natural Buildings, and Alternative Energy Techniques

Permaculture is the conscious design and maintenance of cultivated ecosystems. Permaculture promotes land use systems that work with nature's rhythms and patterns to create a stable society by utilizing resources in a sustainable way. Through lecture, discussion, observation, field trips, hands-on learning, videos, slide shows, and handouts, the Permaculture Design course teaches 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. (4 units)

BIO 375 Earth Science: How Global Geo-Physiology Shapes the Evolving Biosphere, Driven by Its Internal Structures and Processes and Interacting with Life, Air, and Water

The earth is a dynamic, living system, driven by its internal structures and processes, and interacting with life, the air, and water. This course emphasizes the geological and

biological processes responsible for landforms and the chemical compositions of soils, the atmosphere, and bodies of water. (4 units)

BIO 380 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
In this course students enrich the knowledge they have gained with practical experience in the techniques of modern laboratory research. With prior approval of the laboratory supervisor, students work in one of the following laboratories: biochemistry, neurophysiology, immunology, or aging and immortality. (4 units, may be repeated) Prerequisite: consent of instructor

BIO 399 Directed Study
(variable units) Prerequisite: consent of the department faculty

BIO 405 The Sustainable Global Environment: Elevating World Consciousness to Perpetuate Abundance and World Peace — Ideal, Natural Law-Based Solutions to Global Pollution, Natural Resource Depletion, Non-Sustainable Energy Use, Overpopulation, and Loss of Biodiversity
Structuring a living environment that can be maintained on a global scale for all future generations calls for substantial changes in our current way of life. This course provides a broad perspective for transforming the way we think about such issues as population growth, global ecology, land and wildlife resources, renewable energy sources, and sustainable agriculture. (4 units)

BIO 497 Internship in Teaching Life Sciences: 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 biology course. 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, small discussion groups, homework and quiz grading, particularly in the first-year biology course. Some lecture preparation and presentation may also be included as a teaching experience. (4 units)

BIO 498 Internship in Agriculture: Practical Farming Experience Based on Knowledge of Natural Law Applied to Field Experience on Sustainable Organic Farms
This course offers practical experience through work in the University's vegetable farm or at another farm or farm business. Students will keep a journal in which they record the activities they have performed, what they have learned, what they have contributed, and suggestions they have for improvements in the farm or business. (4 units, may be repeated) Prerequisite: consent of the department faculty and the Academic Standards Committee