

# Global Sustainability



# Group's discussion

- How positive or negative do we all feel about Global Sustainability?
- How do we see our role in the world with regard to global sustainability



# SL Major Concept

- Broad liberal arts education in the full range and depth of sustainability issues
- Gaining the skills to enter
- the ‘green’ arena



# Wall of knowledge

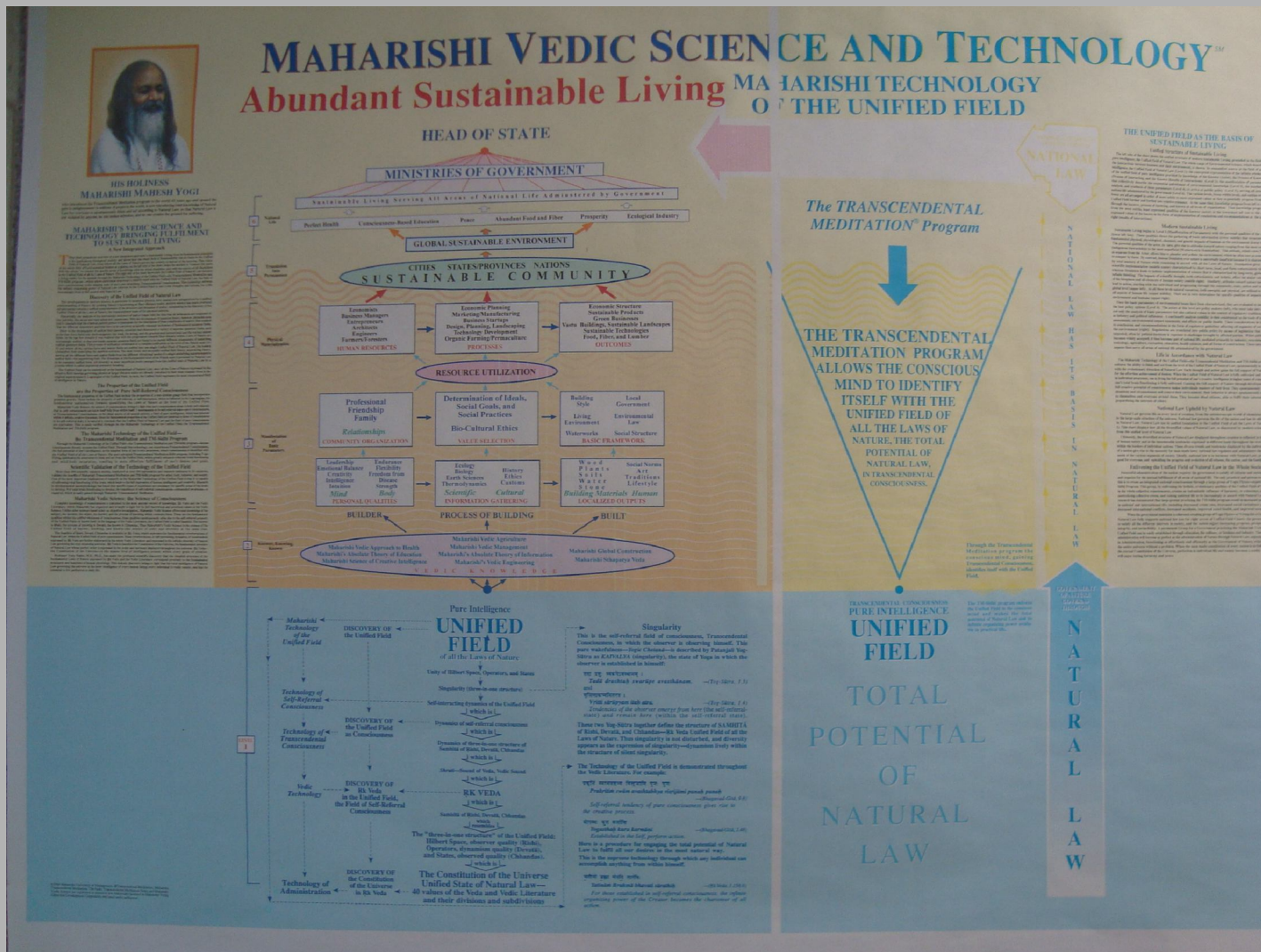
## ABOUT THE WALL OF KNOWLEDGE

The 'Wall of Knowledge' is an overview of our Sustainable Living Program. As faculty, staff and students co-create the program it is inevitably a 'work in progress.' We invite you to study the charts to gain more understanding of our program. Feel free to ask faculty and staff any questions.

Unified Field Chart	Sustainable Living Program 'Manifesto'	Word cloud	Vision, Mission, Goals, Objectives	Tracks and Courses in Relation to Learning Objectives	SL Major requirements	What We Do - SL Dept organization and job allocation	Ten Most Important Points in Each Course	Expressing the Knowledge Exit exam
This provides knowledge at a glance of the scope of the Sustainable Living field, and how both it and you are connected to the ultimate unity of all life.	This sets out our understanding of true sustainability and our vision for the department's undergraduate program. We call it our 'Manifesto.'	This chart portrays the key words found in the SL Manifesto	This chart demonstrates how our vision flows into a mission and hence specific goals and learning objectives. Do you think we have missed something? Let us know.	You can use this chart to see which areas of sustainability are covered by which courses. The chart also tells you how advanced the treatment will be for each learning objective.	Here is a definitive listing of the requirements of the Sustainable Living major. Consult your faculty advisor for further guidance.	You can see here who does what. Contact the department administrator for more details.	The chart sets out ten main topics covered in some of our more popular courses	Here are the topics that you should know about by the time you graduate. The exit exam is a requirement for graduation. Good luck!



# Unified Field Chart



# Manifesto

## The Sustainable Living Program at Maharishi University of Management - January 2011

### What is the sustainability movement?

It's a new approach to solving complex environmental problems through solutions that integrate ecological health, social justice, and economic well-being. Its approach is also refreshingly positive, realistic, cooperative, and inspirational.

Sustainability is most often defined as *meeting the needs of the present generation without diminishing the ability of future generations to do the same*. But there is more to it than that. Sustainability is more fully defined as *life in a thriving world in which we find rich, celebratory, productive, and spiritually fulfilling lives without depleting each other, the other creatures that inhabit the earth with us, and the present and future environment that we all depend on*.

Taken together, the core concepts of Sustainable Living represent a new way of thinking about humanity's presence on the earth and its place in the universe. This new paradigm is rapidly replacing the old paradigms that created the industrial age, neo-classical economics, and a mechanistic worldview.

### Current world problems

The current world depletes the environment, exploits people and relies on finite stocks of fossil fuel and other non-renewable resources. The most prominent outputs of modern industrial economies are a linear stream of wasted energy, wasted materials, and weakened communities. This system largely ignores the operating principles of nature, depends on compound growth in linear throughput of materials and energy. On a finite planet, and at the current level of human awareness, this is simply not sustainable.

### Environmentalism

Some members of earlier movements, such as conservationism and environmentalism, focused mainly on problems, working to mitigate the harmful effects of human action in the context of a world defined by a failed and limited/isolated economic and social world view. This was, and continues to be, important work.

However, many environmentalists' angle of engagement was seen as "gloom-and-doom," confrontational, and guilt-inducing. In contrast, the Sustainability movement focuses more on cooperative, holistic solutions to local and global problems in ways that encourage the health of the natural environment as well as the development of human potential.

### Being in tune with natural law

Sustainability seeks to integrate human economy with the economy of nature, which uses the daily input of solar energy to renew and restore materials as it flows through the biosphere. Similarly, sustainability seeks to renew and restore human capital — the relationships and communities on which human economy also depends. This includes humanity getting back in touch with its own internal, spiritual nature.

### Deep sustainability

The early stages of sustainability were concerned mostly with making changes on the margin of the existing system to "make it sustainable." This usually involves increasing efficiency and substituting non-sustainable materials and energy with more sustainable alternatives.

A deeper look often shows that the existing system is inherently exploitative of people and nature, and that no amount of tinkering (efficiency or substitution) will make that system sustainable. In fact, making an exploitative system more efficient can, from a truly sustainable perspective, make it worse.

What is needed is a *holistic redesign* to make the system fundamentally cooperative, resilient and regenerative. We thus strive to give our students the ability to implement efficiency and substitution solutions in the short term while at the same time working toward a more deeply sustainable, radical system-redesign perspective.

### Holistic, Consciousness-Based transformations

Our ability to achieve a holistic redesign also requires a change in culture and mindset. Humanity needs to raise its level of consciousness so we are spontaneously aware of our responsibilities towards the whole planet, both now and for future generations — and that we have the creativity and intelligence to meet these responsibilities and the global willingness to work cooperatively to do so.

MUM is the world leader in developing Consciousness-Based solutions to sustainability. These are drawn from the philosophies and technologies of Maharishi Mahesh Yogi and India's ancient Vedic traditions of knowledge. They include the application of the Transcendental Meditation technique and associated programs to expand core consciousness, increase creativity and intelligence, and create a more peaceful, harmonious, and creative world. Sustainability begins within — it is structured in consciousness. Achieving true sustainability depends on developing the full potential of our consciousness.

### The great work

We believe that creating a world based on the principles of sustainability is the most ambitious project that humans have ever embarked upon — and the

will involve the majority of humanity for the next 50-100 years. It is the primary challenge of the current and upcoming generations. We invite you to join us in this great work.

### Pioneering a new discipline

MUM established the first four-year Sustainable Living degree program in the US in 2003, and is a leader in the field. This new academic discipline is now being pioneered at MUM and an increasing number of other institutions around the world. Because it is so new as a discipline, there are no broadly accepted guidelines on what constitutes an education in Sustainable Living. In contrast, more traditional disciplines like engineering, business, biology, philosophy, anthropology, etc. have curriculum standards and specialties that are widely accepted by institutions offering these programs.

### Our Sustainable Living program goal

The overall goal of the Sustainable Living program at MUM is: *To create with students a worldview that comprises an intellectual framework and state of awareness to participate successfully in the design, construction and maintenance of sustainable communities, from the local to the global level that are ecologically, economically, socially, and spiritually in accord with Natural Law.* From our perspective, sustainable living is rethinking every aspect of human endeavor in terms of the renewing and regenerating aspect of sustainability. Communities need to be provisioned with housing, energy, food, clothing, water, and social services. They need sustainable governance, banking, and economic structures. People in communities need meaningful employment, satisfying and living human relationships, rich artistic expression, a culture that encourages them to learn and grow, and a larger sense of purpose in life.

### Consciousness-Based education

Ultimately, rising consciousness is at the core of all positive changes in the world. Many in the field of Sustainable Living "talk the talk" about changing our culture and consciousness to achieve real solutions. At MUM we aim to "walk the walk" by taking a uniquely practical approach to achieving this change. This approach operates on two levels, individual and collective.

**On the individual level** — Our faculty, staff, and students all practice the simple, natural technique of Transcendental Meditation in class. Hundreds of scientific research studies have demonstrated the effectiveness of this technique in promoting integrated brain functioning and in increasing intelligence, creativity, moral maturity, and field independence (the ability to see the forest for the trees). This technique also promotes growth of self-actualization, balanced personality development. As we approach the world's environmental problems, from local to global, we will need to bring ever greater creativity and intelligence to bear on them. Here is a procedure that directly develops creativity and intelligence *from within*, even after adolescence when these values normally level off.

**On the collective level** — Another body of scientific research shows that when people come together for group practice the Transcendental Meditation technique, along with the advanced meditation procedure known as the TM-Sidhi program, they reduce societal stress and create significant positive changes that can be measured throughout society. These include reduced rates of crime, accidents, and sickness; improved international cooperation; and even reduced violence and warfare (among the most egregious symptoms of an unsustainable society). Creating a sustainable world will require much higher levels of people, institutions, and nations than we see today. Here is an approach that reduces stress and conflict and promotes coherence and harmony from within society's innermost fabric.

Thus our approach to education is based on creating coherence in both individual and collective consciousness.

### Outcomes — knowledge and competencies

Our program aims to give students the breadth of wisdom to be able to make a real difference in their own lives and the life of society.

All students are required to take a set of core courses that cover the full range of Sustainable Living. In addition, we offer the option to develop depth by taking internships and/or following an educational track concentration in a key area of concern to sustainable communities. The main areas of consideration are:

- Fundamentals of Sustainability
- Agriculture and Food
- The Built Environment
- Renewable Energy
- Policy and Governance

Our courses provide a mix of theoretical and hands-on practical activities. All courses work to train students in the core competencies

also been proven to be highly desirable to prospective employers. They are all enriched by our focus on development of consciousness. The skills of an Environmental Problem Solver / Change Agent include:

- Leadership and teamwork
- Oral and written communication skills
- Critical thinking
- Creativity and innovation
- Digital media literacy
- Information literacy and critical thinking
- Common sense
- Conflict resolution
- A lifelong love of learning

### Students and faculty

Currently we have about 70 students in our undergraduate program, five full-time faculty, one part time, two full-time teaching assistants, and excellent support staff. Additionally we have several adjunct faculty from within the university.

An important feature of our department is visiting faculty — nationally renowned figures in the Sustainable Living movement who come to teach a one-block (4-week) course. We have also had many prominent guest speakers. Guest faculty and speakers have included Dr. Elaine Ingham — a world-renowned soil biologist, Professor John Ikerd — a national figure in the field of sustainable economics, Mike Nickless — AIA Fellow and national leader in green building developments, and Scott Pittman — one of the founding fathers of Permaculture in the USA.

Typically we offer about 4 courses during each block, with both a core course and electives in every block, so there is always a good level of choice.

### Buildings

We also work to make our facilities part of the curriculum — a laboratory for what you learn in the classroom. Currently we are housed in a 1960s-vintage science building that is in the process of being retrofitted with solar, geothermal, and wind energy as well as day lighting, etc.

Extremely exciting is our department's *Sustainable Living Center*, the first building of its kind in the world. This new building is an entirety off the grid "building that teaches" by combining four architectural philosophies: LEED Platinum (Leadership in Energy and Environmental Design), Bau Biology, the Living Building Challenge, and Vedic Architecture. This is due to be ready for occupation in May 2011.

### What our Sustainable Living Program doesn't offer

- Community college style vocational/job training
- An engineering or architecture degree
- A conventional environmental science education
- Pollution control training
- A guide to increase efficiency and substitution alone
- A step by step process on how to live in the woods in a self-reliant way (individual self-sufficiency)

### What our program does offer

- Personal development of consciousness
- Broad-based understanding of sustainability for communities
- A new paradigm, a "new set of eyes" with which to see the world
- Redesign for regeneration and renewal
- Training for specific (green) jobs or careers through tracks and internships
- Hands-on application of principles, as well as theory
- Hands-on workshops for community/homesite energy and water management
- A living laboratory for the development of creative solutions
- Training to be a leader in the great enterprise of creating a sustainable world for our world

### Annual Ecofair

The MUM Ecofair was started in 2001 by two students, and has been held annually and organized mostly by students ever since. It is a weekend event every Spring that features regional and nationally-known experts who speak on sustainability aspects of energy, the built environment, agriculture, communities, transportation, artisanal food, and the like. In addition, it includes workshops, tours, films and the ever-popular EcoJam, a Saturday night eco-fashion show and dance put on by students.

### What are our Sustainable Living graduates doing?

About half of our graduates are working in the field of sustainable living. The rest are in post-graduate education, have taken work in other fields, or are seeking work positions.

Here are some of their sustainable-by-related activities:

- Attending graduate school (e.g., architecture, herbal treatments, international studies, green MBA)
- Working on a sustainable agriculture project in Virginia
- Assisting the start-up of a Native American environmental university
- Regional Director of Sustainability Education, Peace Corps, Paraguay
- Consultant for the Walker Group International community in Fairfield, IA
- Sustainability Coordinator for 9000+ employees in Fairfield, IA
- Principles and employees of Above Green, a LEED certifying agency
- Working at Golden Rule Community Mini-Farm in Wilkes, CA
- Teaching sustainability in Peru
- Working at Ellery's Sustainable Bamboo Farm in Belize
- Assistant Director of the City Paper project, Portland, OR
- Teaching yoga, implementing sustainability in a project in Nepal
- Attending a one-year Primitive Skills Apprenticeship in Kirkland, WA
- Local Food Coordinator for Pathfinders Resource Conservation & Development, Fairfield IA

### Warm invitation

We would like to extend a warm invitation to join us as an MUM Sustainable Living major. We are a small, friendly university with great depth of knowledge and warmth of heart. Once again, we believe that creating a world based on the principles of sustainability is the most ambitious project that humans have ever taken on, and the transition will involve the majority of humanity for the next 50-100 years. It is the grand undertaking of the current and upcoming generations. We invite you to join us in this great work.

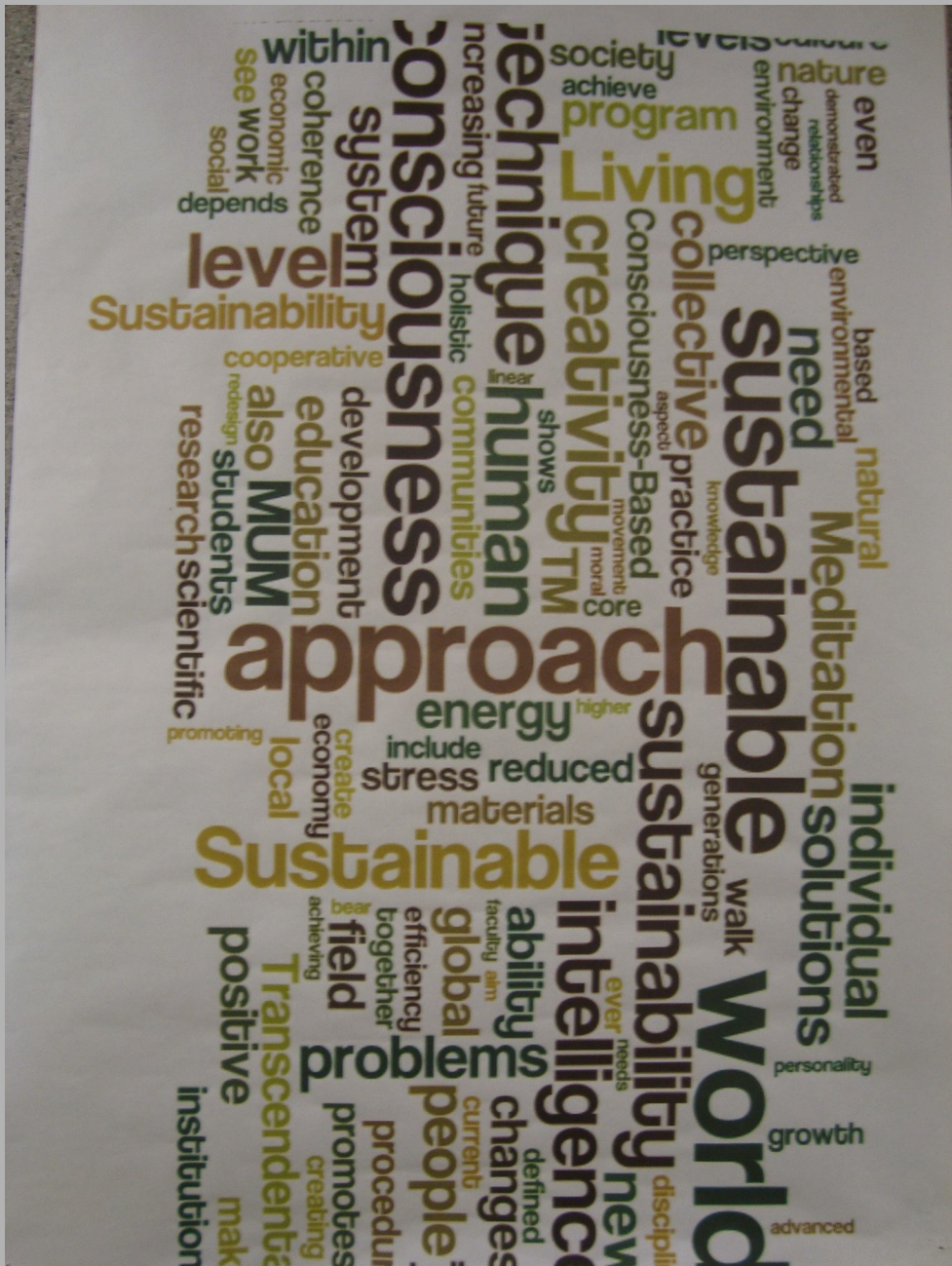
### Further reading about our program

Contact our department: 641-472-7000 x2008  
Email: [sustainability@mum.edu](mailto:sustainability@mum.edu)

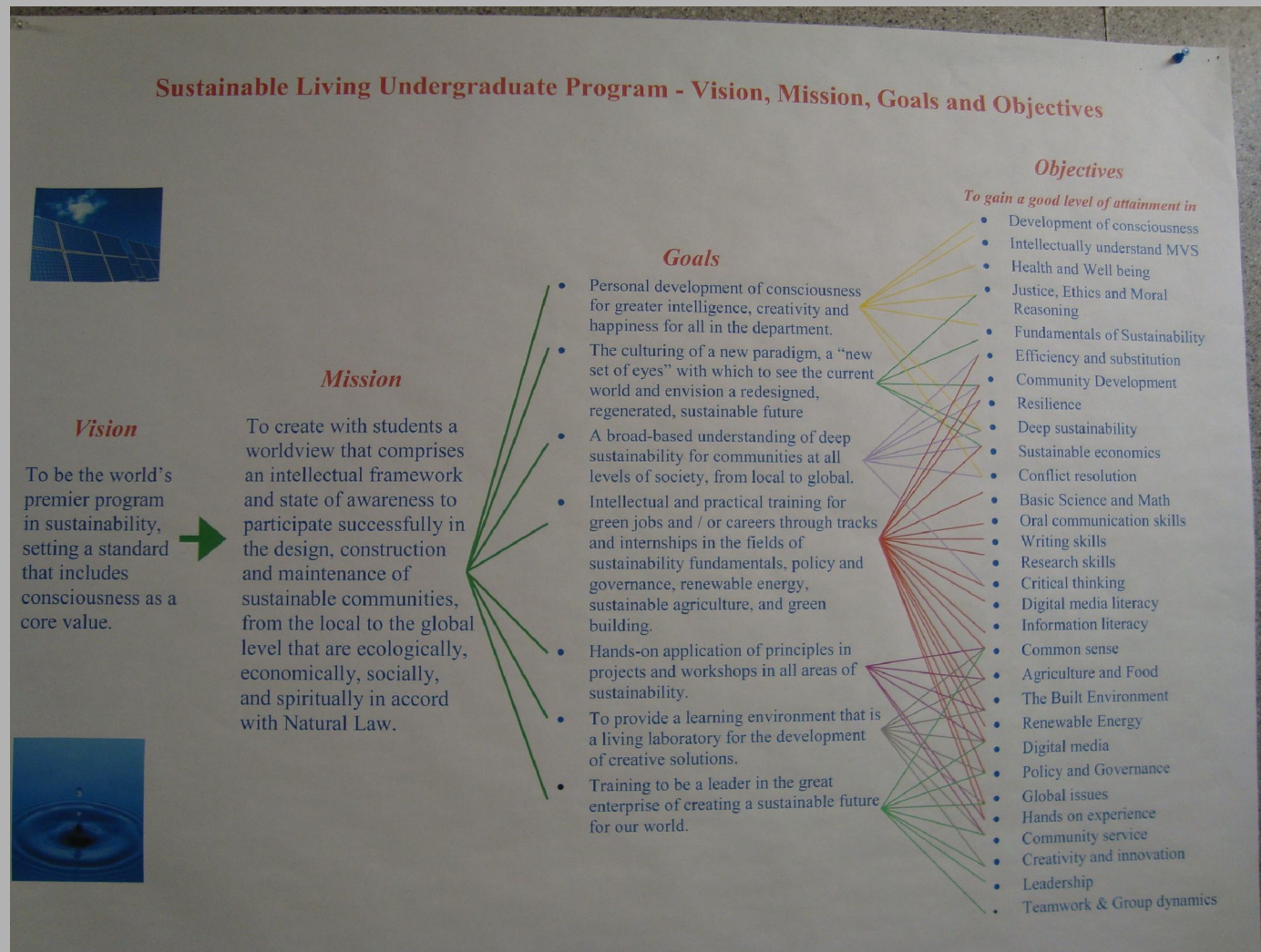
Course description  
[http://www.mum.edu/pdf/catalog/sustainable\\_living.pdf](http://www.mum.edu/pdf/catalog/sustainable_living.pdf)  
Faculty [http://www.mum.edu/sustainable\\_living/faculty.html](http://www.mum.edu/sustainable_living/faculty.html)  
Sustainable Living Center: <http://thesustainablelivingcenter.org>



# Word Cloud



# Vision Mission Goals Objectives





# Tracks and Courses in Relation to Sustainable Living Objectives

Tracks and Courses in Relation to Sustainable Living Objectives

About this chart ...	Attainment levels	Introductory	Intermediate	Advanced
<p>This chart lists our SL courses and shows the relationship between those courses and the learning objectives of the SL program. Each course is scored in relation to each learning objective either as introductory, intermediate or advanced in relation to that objective. One purpose is to enable students to check any particular course and get a better idea of the learning content. Also it enables faculty to check that all the learning objectives are being met at all levels in our courses.</p>	<p>Development of consciousness Intellectual understanding of WWS Health and Well being Justice Ethics Moral Reasoning Fundamentals of Sustainability Efficiency and Innovation Community Development Resilience Deep sustainability Sustainable economics Conflict resolution Basic Science and Math Oral communication skills Writing skills Research skills Critical thinking Information literacy Common sense Agriculture and food The Built Environment Renewable Energy Digital media literacy Policy and Governance Global Issues Hands on experience Community Service Creativity and Innovation Leadership Teamwork &amp; Group Dynamics</p>			
<b>AGRICULTURE</b>				
Organic Agriculture SL-A101				
Season Extension SL-A201				
Living Soil SL-A301				
Planning a Sustainable Farm SL-A401				
<b>BUILT ENVIRONMENT</b>				
Sustainability, Buildings, & Built Env. SL-B101 CORE				
Natural Building SL-B201				
EcoCities SL-B202				
High Performance Green Building SL-B301				
<b>ENERGY</b>				
The Energy Basis of Humans & Nature SL-E101 CORE				
Renewable Energy Technology I: SL-E201				
Renewable Energy Technology II: SL-E202				
Modeling and Monitoring Energy Flow SL-E301				
<b>FUNDAMENTALS</b>				
Deep Ecology SL-F151				
Spirituality and Sustainability SL-F305				
Social Justice and Sustainability SL-F310				
Philosophies of Sustainability SL-F401 CORE				
<b>POLICY</b>				
Global Sustainability SL-P101 CORE				
Policy for Food Security SL-P202				
Energy Policy for Sustainability SL-P302				
How to Influence Policy SL-P404				
<b>GENERAL ELECTIVES</b>				
Permaculture Design SL-G101 CORE				
Consciousness and Sustainability SL-G102				
Natural Beekeeping SL-G109				
Woodworking for Sustainability SL-G110				
Materials, Tools, & Methods for Sustainability SL-G130				
Earth Systems SL-G140				
Living Systems SL-G195				
Building Biology SL-G200				
Ecology SL-G201 CORE				
Critical Thinking SL-G202 CORE				
Plant Taxonomy SL-G203				
Solutions to Climate Change SL-G204				
Trees and Sustainable Forestry SL-G205				
Artisanal Foods & the Slow Food Movement: SL-G210				
Environmental Planning and Landscaping SL-G220				
Applied Systems Thinking SL-G225				
Exotic Tropical Fruit Production SL-G240				
The Art and Science of Fruit Culture SL-G250				
Systems Thinking and Ecological Worldviews SL-G251				
Energy Auditing SL-G260				
Design, Innovation, Sustainability SL-G270				
Ethnobotany SL-G280				
EcoVillages and Intentional Communities SL-G230				
Local Economy Networks SL-G300				
Sust. Landscape Architecture Studio SL-G310 (FA 461)				
Basic AutoCAD SL-G324				
Campus Sustainability & AASHE Conference SL-G330				
Economics of Sustainability SL-G340				
Plant Biology SL-G350				
Sustainable Water Resource Management SL-G353				
Earth Materials SL-G355				
Environmental Law SL-G370				
Sustainable Living Project Prep SL-G400				
Senior Sustainable Living Project SL-G401				
Green Leadership Adventure SL-G402				
Student Marketing Team SL-G411				
Math for Sustainability				

# Policy Track

- What is an SL track?
- Main courses
  - Global Sustainability
  - Policy for Food Security
  - Energy Policy for Sustainability
  - How to Influence Policy





# What is Policy?



- Origins of policy – power and public trust
- Policy is a set principles, goals and decisions to achieve specific outcomes
- Policy is often extremely powerful
- Some policy tools: speeches and documents, fiscal measures, education, marketing, leading by example, technology transfer or protection, diplomacy, covert operations, war.
- The publicly stated objective of policy may be very different from the true objective.



# Careers in Policy

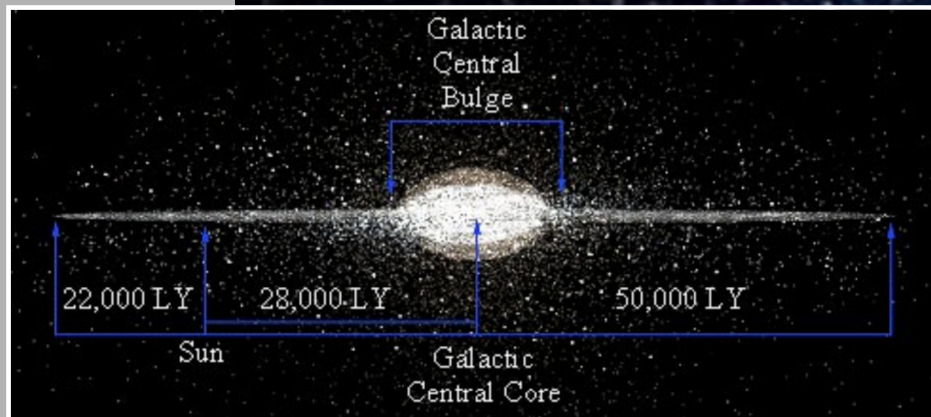


# Generalist

- A person with a wide array of knowledge, the opposite of which is a specialist.
- Key skills: Common sense; reading, writing, listening and speaking skills

I keep six honest serving-men;  
They taught me all I knew.  
Their names are What? and Why? and When?  
And How? and Where? and Who?

# Generalists: Getting the Big Picture





# Defining Global Sustainability

Global sustainability is humanity living happily, in abundance and in harmony with the ecosphere, bringing mutual enrichment and evolution to all in this generation and all future generations.

# Group Work

- Defining Global Sustainability
- What are the challenges?

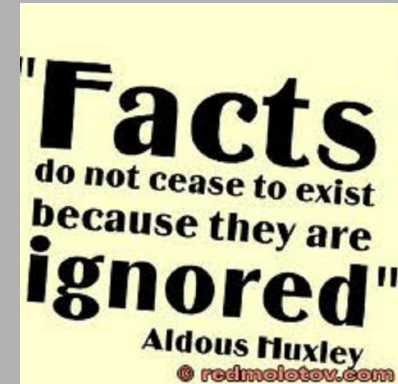


# Wholeness of the course

This course studies the big picture as to what should be done to transform the current unsustainable trends in population, land and wildlife depletion, climate change, energy sourcing and usage, the built environment, agriculture and food, economic exploitation, militarism, etc. We study the shifts in collective consciousness, mind-sets and political processes that are needed to take us from regarding our fellow humans and the ecosphere as expendable resources to treasuring them as entities with which we must live in harmony for mutual enrichment and evolution.



# Commanding Facts



- Information is one of the key ingredients for change.
- Information in the form of hard facts is powerful as it shows that your opinion is grounded in reality.
- When you can quote well-targeted facts it is helpful, persuasive and impressive.
- Lester Brown fills his book with pertinent facts, and it is one of Plan B's strengths.



## Fact File and Test

- As part of the course, students will compile a fact file. Pick out 2 or more favorite facts from each chapter, type them up in a separate file and learn them. You can also use facts taken from your other research.
- Towards the end of the course we'll have a closed book test on this, which will simply be to write out your 12 favorite facts from the course.

# How to State Facts



- **USELESS:** Europe is going to reduce its climate impact by 20%
- **USEFUL:** The European Union has set a target to reduce CO<sub>2</sub> emissions 20% by 2020 relative to 1990 levels.
- Think **TIME** and other **UNITS**



# Course Practicalities

- Christmas
- Course fee \$20 by end of Wednesday
- Group meditation
- Grading
- Late completion
- Course Moodle

# Assignments

- See Moodle Assignment page
- Tonight's assignment – read chapter one and main points