

Earth Education International
Society & Sustainability
Environmental Management & Protection 480/580 (1)
Dr. Miguel Karian, Spring 2012



Instructor Availability

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NOTE: Please limit academic calls to work hours (8a-5p Mon-Fri), unless extremely important

Availability: By appointment one working day in advance (if feasible)

Course Description

An interdisciplinary synthesis of social aspects of sustainability: Socio-economics, personal sustainability, and related ecological interactions. Emphasis on global-local connections in Costa Rica/Central America and personal integration of sustainable living practices. Includes lecture, class discussion, group activities, field study, and volunteer service-learning work in community development, environmental protection, social programs, and/or other areas as appropriate. No prerequisite, but successful completion of an introductory environmental studies, global systems, community development or related course highly recommended. Co-requisite of 'Environmental Sustainability'. Three undergraduate or graduate (post-baccalaureate) credits (additional work required, see below).

Course Objectives

At the completion of this course, the student will be able to:

1. Describe economic and socio-personal foundations of sustainability; as well as related ecological interactions.
2. Explain principal issues related to sustainable development globally, in a 'developing' country context, and to Costa Rica/Central America in particular.
3. Analyze challenges and successes of sustainability efforts for a specific case-study in Costa Rica/Central America.
4. Articulate societal and personal solutions to achieving sustainability through synthesis of acquired knowledge.
5. Safely and satisfactorily perform cognitive and psychomotor tasks associated with volunteer work assignments.

Course Materials

A course packet of materials will be available for purchase which includes materials from the following texts. Handouts and/or newspaper articles may complement these materials.

I. Primary Sources

Christie, I. & Warburton, D. 2001. From Here to Sustainability: Politics in the Real World. London: Earthscan.

Edwards, A. R. 2005. The Sustainability Revolution: Portrait of a Paradigm Shift. B.C.: New Society Publishers.

II. Supplemental Sources

Andrews, C. & Urbanska, W. (Eds.) 2009. Less is More. B.C.: New Society Publishers.

[Chapter 18: *Culture as a Guidepost for a Balanced Life by Cathy O'Keefe*]

Elgin, D. 2010. Voluntary Simplicity: Toward a Way of Life That Is Outwardly Simple, Inwardly Rich. NY: Harper Collins.

[Chapter 4: *Living Simply*]

May, R. & Tamez, C. 2007, Spring. Eco-Ethics and Global Citizenship: A View from Central America. Reflections, Vol. 94, No. 1, p. 62-64.

Purvis, M. & Grainger, A. 2004. Exploring Sustainable Development: Geographical Perspectives. London: Earthscan.

[Chapter 7: *Business, Capital & Sustainable Economic Development*]

Strange, T. & Bayley, A. 2008. Sustainable Development: Linking Economy, Society, Environment. Paris: Organization for Economic Cooperation and Development (OECD). Available at: <http://www.oecd.org/insights/sustainabledevelopment>

[Chapter 5: *Sustainable Development - Production and Consumption*]

Wackernagel, M. & Rees, W. 1996. Our Ecological Footprint: Reducing Human Impact on the Earth. B.C.: New Society Publishers. [Chapter 2: *Footprints & Sustainability*]

Wann, D. 2007. Simple Prosperity: Finding Real Wealth in a Sustainable Lifestyle. NY: St. Martin's Press.

[Chapter 12: *Energy Savings*]

Course Requirements

1. **Attendance/Participation.** In order to achieve stated course objectives, attendance and active participation in class and associated field study and volunteer service-learning work is essential. Evaluation in this category will consist of two parts:
- A) **Attendance** (your physical presence) in the classroom *and* during field study/volunteer work, which will make-up 80% (80 points) in this category. Please note that showing up late for class or an activity on more than two occasions is considered equivalent to missing one entire class period.
- B) **Active participation** (quantity & quality of verbal interaction and/or other psychomotor tasks) during discussions, dialogues (in-depth analyses), in-class activities, field trips, and volunteer work. Please note that active participation accounts for the remaining 20% (20 points) in this category, or 5% of the final grade for the course. NOTE: Once you have had a chance to speak/participate, please respect others need to do the same before you do so again. TOTAL VALUE: 100 points (25%). LATE POLICY: Not applicable (no make-up's for missed classes)
2. **Field Component: Case-Study Photo Journals.** Participants will be required to post photo journals associated with a selected field site we visit to an online blog. The goal of this assignment will be to document one aspect of a specific sustainability case-study through pictures and accompanying written descriptions, which will be uploaded to the internet. Start by selecting and signing-up in small groups for one specific *field site* we will visit during the course. Also select one of the three foundations of sustainability that you will focus on as your *theme* for the assignment: Economic, ecological, or socio-personal. The assignment will consist of four parts:
- A) **Field Site Visit.** Be sure to prepare for field trips well in-advance, researching background information for your selected site. Doing so will allow you to get the most out of the site visit and guide you in further data collection on-site. During the actual visit you will have two assignments:
1. **Pictures.** Take at least *six professional pictures* (more highly recommended so you can choose from the best later-on). Please note that the PICTURES MUST BE AS SPECIFIC TO YOUR FOCUS THEME AS POSSIBLE, and at least *two* (2) of the pictures should clearly SHOW THE GROUP ENGAGED IN LEARNING ON-SITE (please avoid excessive backs to the camera), with the remainder of appropriate facilities or projects at the site that represent your focus theme. NOTE: If you wish to avoid having to resize pictures before posting, please check your camera settings and adjust as necessary to meet the characteristics below. If a film camera is used, the pictures will need to be scanned (digitized). If for any reason your selected site or topic does not include a physical visit, substitute pictures from pamphlets or the internet may be acceptable *if approved in advance*.
 2. **Data Collection.** Gather as much additional information (beyond what is available online) as possible related to your selected theme while you are on-site. This may consist of collecting brochures or other written materials, taking notes during presentations, and interviewing or informally talking to those involved. A field notebook is highly recommended for this purpose.
- B) **Preparation of Photos.** Once the field site visit is complete, select the *six best pictures* and prepare them for online posting. If they do not already meet the following characteristics, they will need to be modified by using a photo editing program (e.g., Photoshop, Paint, Coreldraw, Photo Studio, Photo Deluxe, ACDsee): 1. **Dimensions:** Between 350-400 pixels wide, or tall if an upright picture. 2 **File size:** Not larger than 100KB. 3. **Professional quality:** Follow the guidelines stated above. Unprofessional, inappropriate, or offensive pictures are not acceptable (no credit) and will be deleted. For detailed guidelines on preparing to post, see: <http://earthedintl.blogspot.com/p/posting-information.html>.
- C) **Written Descriptions.** Soon after completion of the field site visit (while it is fresh in your mind), begin writing one description to accompany each picture (six total). In other words, using researched information *and* data collected on-site, write a concise, thorough description to accompany each picture. Each description should be between 200 and 400 words in length, provide in-depth information relating to that particular picture, and provide substantially different information than any of the others descriptions (i.e., avoid repetition). All descriptions should be prepared in advance of posting so that they may be uploaded together with the pictures. NOTE: *If descriptions are written using MS Word, the document MUST first be re-saved as a text file (.txt) which removes advanced formatting (save the file & then re-open to copy & paste into the blog). If you try to paste text into the blog directly from Word without doing this, it will CAUSE ERRORS. Alternatively, compose the descriptions directly in the blog or use the Notepad program or equivalent.*
- D) **MediaBlog Postings.** Once all six pictures and descriptions are ready, you will need to login to the appropriate blog account to upload them. Go to the blog page (<http://earthedintl.blogspot.com/p/home.html>) and login using the username/password 'EEIblog/participant'. Click on 'new post' and create an appropriate title showing the location (Town: Project). Then paste your descriptions and 'add images' into your posting. When adding pictures, select 'large' for the size (and whatever location you would like it placed at: left/right). Please be advised that getting the layout exactly the way you want can be difficult, so it will likely take a few times posting it and then editing again by moving things around or adding/subtracting blank spaces to achieve a professional-looking post (see previous examples for acceptable format). Once you are satisfied with the text layout, add 'AUTHOR: Your Name' at the bottom (aligned to the right). Finally, add LABELS (lower right, click 'Show all' & then those that apply), and then click on POST OPTIONS (lower left) to enter the date of the site visit. Note that all postings must be completed by the BEGINNING of class time on the due date. TOTAL VALUE: 100 points (25%) total. LATE POLICY: 10% deduction per day late.

3. **Sustainable Living Assignments.** In order to synthesize knowledge acquired during the course, as well as apply that information to the personal level, students will be assigned two distinct sustainable living assignments in-lieu of traditional exams. Although specific guidelines will vary somewhat, both assignments will require synthesizing and integrating personal sustainable living principles with course topics. Assignments will consist of the following:

- A) **Activity Sheets.** Assignments will be accompanied by various activity sheets, which must be completed after reviewing the accompanying readings in the course packet (see course schedule). *On the associated due date, they must be submitted along with (stapled to the back of) the written paper.*
- B) **Written Paper.** A written paper that synthesizes personal sustainable living actions, motivations, and insights (the primary focus of the paper), and 'links' that connect those with course academics. The paper should be thorough but concise, and consist of: 1) What you learned personally from completing the assignment sheets, and 2) Associated linkages to relevant course materials presented in class. A 'guiding question' will be provided with each assignment to assist in this effort. Each paper should be approximately two pages (typed, double-spaced, and double-sided), and include a minimum of five academic 'linkages' (equivalent to references, each from a different reading). See assignment description sheet for details. *NOTE: For students enrolled at the graduate (post-baccalaureate) level, written papers will be held to a higher academic standard appropriate to the level of academic credit. In addition to all other criteria outlined here, this will consist of additional research (at least five written references above and beyond the five 'linkages' to course materials), as well as a minimum of five pages in length.* VALUE: 100 points (25%) each, 200 points (50%) total. LATE POLICY: 10% deduction per day late.
- C) **Class Dialogue.** On the assigned due dates, results will be discussed in class. VALUE: As indicated above under *Attendance/Participation* (verbal participation required). Note: Once you have had a chance to speak, please respect others need to do the same before you do so again. LATE POLICY: Not applicable.

Student Evaluation

The final letter grade for the course will be based on a maximum possible of 400 points according to the following grading scale:

| | |
|------------------------------|------------------------------|
| 93-100% = 372-400 pts. = A | 77-79.9% = 308-319 pts. = C+ |
| 90-92.9% = 360-371 pts. = A- | 73-76.9% = 292-307 pts. = C |
| 87-89.9% = 336-359 pts. = B+ | 70-72.9% = 280-291 pts. = C- |
| 83-86.9% = 332-335 pts. = B | 65-69.9% = 260-279 pts. = D+ |
| 80-82.9% = 320-331 pts. = B- | 60-64.9% = 240-259 pts. = D |
| | <60% = <240 pts. = F |

Course Policies

Field Study Format. This course is designed to offer the student unique learning by doing opportunities through hands-on experiences. The course format will thus include significant field study as well as volunteer work at various sites. However, please remember that this is an academic experience equivalent to classroom time: Always adhere to all course and program policies, work safely in all activities, and have an emergency plan in mind at all times.

Field Study & Service-Learning Items. Please remember that various field study items are required for safety reasons.

Although specific items will vary from site to site, the following general items are required for ALL overnight trips:

a) A good *flashlight* with extra batteries; b) *Basic medical supplies* (anti-diarrhea and upset stomach medication, antiseptic, Band-Aids, antibacterial ointment, sting/itch reliever, motion sickness medication if applicable); c) *Enclosed shoes*; d) *Travel bag(s)/backpack*; e) *Water bottle* (at least 1 liter size); f) *Rain gear*; g) Required *personal medications*; h) Any type of *hat* (sun protection); i) *Sunscreen* and sunburn medication; j) *Notebook* for journal keeping; k) Portable Spanish-English *dictionary* or guidebook (not necessary for advanced Spanish speakers). For more details on service-learning/field study guidelines, see <http://www.earthedintl.org/Policies.htm#Academic>.

Absences. In accordance with general program policies, course absences will subject grades to being lowered. Unexcused absences from *class meetings* will subject the final course grade to a reduction of 1% (for 1 days missed), 2% (for 2 days missed), and 5% per day thereafter (for three or more days). Also note that excessive tardiness to class may be counted as missed class. Missed *field study/volunteer work days* will result in a 5% reduction in the final grade (1 day missed), and a 10% reduction per day thereafter (this is also considered class time). This means that if you are late and miss a departure for a field trip, you not only miss the trip, but also the equivalent amount of class time. For SPECIAL circumstances (beyond your control) where you are unable to attend, it is YOUR RESPONSIBILITY TO DIRECTLY CONTACT THE INSTRUCTOR PRIOR TO CLASS TIME, regardless of the reason for the absence. Otherwise, all policies previously outlined will be in force and there will be NO make-ups.

Participation. With the exception of illness, participants are expected to attend all program functions, activities, field trips, service-learning activities, guest presentations, etc. There are a variety of reasons for this including receiving academic credit for associated activities, facilitating program dynamics, assisting with personal adjustment issues, and contributing your effort toward group assignments.

Program Policies. Please be advised that all other policies identified on the program web site, and presented at the beginning of the program apply for the duration. See <http://www.earthedintl.org/Policies.htm> for details.

Course Outline

I. Introduction

- A. Course Introduction & Academic Objectives
- B. Sustainable Development: An Introduction
 - 1. History, definitions & principles
 - 2. Uneven development
 - 3. Ecological footprints

II. Economic Foundations: Human Capital

- A. Economic Growth in Perspective
 - 1. Exponential growth vs. steady-state economics
 - 2. Externalities
 - 3. Indicators of sustainability
- B. Globalization & 'Free-Trade'
 - 1. Colonialism, development, & the rise of the corporation
 - 2. The Central American Free-Trade Agreement: CAFTA
 - 3. 'Political economics' in Central America & beyond
- C. Permaculture: Design for Sustainability & Resource Flows
 - 1. Creating a sustainable materials economy
 - 2. Energy & sustainability

III. Socio-Personal Foundations: Cultural Capital

- A. Social Equality & Justice
 - 1. Making development socially-equitable
 - 2. Social movements & human rights
- B. Socio-Political Approaches
 - 1. Agenda 21: International sustainability efforts
 - 2. Sustainable development strategies
 - 3. Central American case-studies
- C. Personal Sustainability
 - 1. Deep ecology & voluntary simplicity
 - 2. Sustainable living: Exploration, synthesis & integration

IV. Conclusions: Social Change & Global Citizenship

Tentative Course Schedule

| WEEK | DATE | UNIT & TOPIC | - READINGS, ASSIGNMENTS & DUE DATES |
|------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Mon Feb 20 | IC. Sustainable Development & Ecological Footprints (1) | - From Here to Sust--Ch. 1: <u>Millennial Hopes & Fears</u> - Sustainability Rev--Intro & Ch. 1: <u>The Birth of Sustainability</u> - Our Ecol. Footprint--Ch. 2: <u>Footprints & Sustainability</u> ASSIGNMENT: Photo Journals |
| | Thurs Feb 23 | IIA. Economic Growth & Indicators of Sustainability (2) - <u>Video & Discuss: The Corporation (Ed.,60)</u> | - From Here to Sust--Ch. 2: <u>Richer Futures</u> - Sustainability Rev--Ch. 3: <u>Sustainability & Commerce</u> ASSIGNMENT: Sustainable Living Assignment #1 |
| 2 | Thurs Mar 1 | IIB. Globalization & Free-Trade (3) - <u>Video & Discuss: The Crises of Capitalism (11)</u> - <u>Video Clips & Discuss: 3rd World Dance (3), Economic Hitman (10), Brown (3), Nito Man</u> | - From Here to Sust--Ch. 5: <u>A New Economic Order</u> - Exploring Sust. Dev--Ch. 7: <u>Business, Capital & Sust Econ Devel</u> |
| | March 2-4 | Field Study & Service-Learning Trip: La Fortuna | |
| 3 | Thurs March 8 | IIIC. Permaculture: Design for Sustainability & Resource Flows (4) | - Sustainability Rev--Ch. 4: <u>Sustainability & Natural Resources</u> - Sustainability Rev--Ch. 5: <u>Sustainability & Ecological Design</u> - Sust Develop: Linking Economy, Society, Env.--Ch. 5: <u>Sustainable Development - Production and Consumption</u> |
| 4 | Thurs March 15 | IID. Energy & Sustainability (5) | - Simple Prosperity--Ch. 12: <u>Energy Savings</u> - Sustainability Rev--Ch. 6: <u>Sustainability & the Biosphere</u> DUE DATE: Photo Journals & Postings Due #1 |
| 5 | Thurs March 22 | <u>Sustainable Living Dialog: Exploration & Evaluation</u> - <u>Video & Discuss: The Story of Stuff (20)</u> | - Less is More--Ch. 18: <u>Culture as a Guidepost for a Balanced Life</u> - <u>Nicaragua: Past & Present</u> DUE DATE: Sustainable Living Assignment #1 ASSIGNMENT: Sustainable Living Assignment #2 |
| 6 | March 28-31 | Field Study & Service-Learning Trip: Nicaragua | |
| 7 | April 5-8 | Semana Santa (no class) | |
| 8 | Thurs April 12 | IIIA./B. Social Equity & Sustainable Development Strategies (7) - <u>Video Clips: Soc Movements & Human Rights: International case studies (Nigeria, Kenya, Brazil, India)</u> - Nicaragua Preparations - <u>Video Clips: Central America Case Studies--Ants (14), Looking for Home (13)</u> | - From Here to Sust--Ch. 4: <u>Poverty Amid Plenty</u> - Sustainability Rev--Ch. 2: <u>Sustainability & Community</u> - From Here to Sust--Ch. 6: <u>Good Governance</u> DUE DATE: Photo Journals & Postings Due #2 |
| 9 | Mon April 16 | <u>Sustainable Living Dialog: Synthesis & Integration</u> - <u>Video & Discuss: Walden (22)</u> | - From Here to Sust--Ch. 8: <u>Making It Happen</u> - Voluntary Simplicity--Ch. 4: <u>Living Simply</u> DUE DATE: Sustainable Living Assignment #2 |
| | Tue April 17 | Field Study & Service-Learning Trip: Palmares | |
| | Thurs April 19 | IIIC./IV. Personal Sustainability & Global Citizenship (8) - <u>Video & Discuss: The Unfolding Story (27)</u> | - Sustainability Rev--Ch. 7: <u>Future Pathways</u> - Article: <u>Eco-Ethics and Global Citizenship</u> |

Tentative Case-Study Field Sites/Themes

| COURSE AFFILIATION | LOCATION & DESTINATION | APPLIED SUST CASE STUDY THEMES | | | | | | | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|---------------------|------------------------|----------------------|--------------------|------------------------------|-----------------------------|
| | | Environmental Conservation | Community Development | Sustainable Tourism | Sustainable Businesses | Agriculture/Land Use | Renewable Energies | Social Equity/Uneven Develop | Environmental Perturbations |
| Spanish | Alajuela: Rural Family Farming & Aquaculture | | | X? | X | X | | | |
| Culture | San José: Commerce & history | | | X? | X? | | | X | X |
| | San Ramón: Organic coffee farm & processing plant | X? | | | X? | X | | | |
| Env Sust | Cerro de la Muerte: Private biol. field station | X | | X | X | | X? | | X? |
| | Cerro de la Muerte: Eco-tourism/tourism | | X | X | X | | | | |
| | Punta Morales: UNA marine biology station | X | | | X | | X? | | X? |
| | Punta Morales: UNA crocodile research study | X | | | | | | | X? |
| | Punta Morales: Iguana breeding project | X | X | X | X? | | | | X? |
| | Costa de Pajaros: UNA/community oyster cultivation | X | X | | X | | | X | X? |
| | Peñas Blancas: Hydroelectric Power Plant | | X | | X? | | X | | X |
| Soc & Sust | La Catarata Ecodge | | X | X | X | | X | | |
| | GEMA: Medicinal Plants & Products | | X | X | X | X | | X | |
| | Arenal National Park: Environmental Conservation & Ecotourism | X | | X | X | | | | |
| | Eco-Hotel Mariposa: Sustainable tourism & business, community development | | X | X | X | | X | X | |
| | Jubilee House: Intentional community & Center for Development in C.A. | | X | | X? | | | X | |
| | Nueva Vida: Women's fair trade cooperative | X? | X | | X | | | X | |
| | Managua: Uneven development/poverty | | | | | | | X | X |
| | Carita Feliz: Local school for 'street children' | | X | | | | | X | |
| | La Granadilla: Rural community tourism & agriculture | | X | X | X? | X | | X | |
| | Madre Verde: Community conservation, biological corridor, environmental education *special arrangement due to time constraints* | X | X | | X? | X | | | |

| CHART KEY |
|-------------------------------------------------------|
| X = Site theme positively applicable |
| X? = Site theme negatively applicable or questionable |

Additional Online Resources

NOTE: All links are available online at: <http://www.earthedintl.org/CourseMatls/Sust&SrcvLrn.htm>.

Also see: http://www.earthedintl.org/Links_Sustainability.htm

- Balakrishna, P. & Warner, E. 2003. Sustainable Development Goals & Trade. Sri Lanka: The World Conservation Union (IUCN). Available at: <http://www.iucn.org/dbtw-wpd/edocs/2003-052.pdf>
- Bainbridge, D. 2009. Rebuilding the American Economy with true cost accounting. Online Text. Available at: http://www.sustainabilityleader.org/Sustainability_Leader/About_me.html
- Esty, D. C., Levy, M., Srebotnjak, T. & Sherbinin, A. 2005. Environmental Sustainability Index: Benchmarking National Environmental Stewardship. New Haven: Yale Center for Environmental Law & Policy. Available at: www.yale.edu/es/
- Institute for Environmental Studies, University of Amsterdam. 2010. SustainabilityA-Test. Available at: <http://www.sustainabilitya-test.net/>
- László, P., Peter Hardi, P., & Bartelmus, P. 2005. Sustainable Development Indicators: Proposals for a Way Forward. Winnipeg: International Institute for Sustainable Development. Available at: http://www.iisd.org/pdf/2005/measure_indicators_sd_way_forward.pdf
- Mohally Renk, B. 2005. "Give it Your All" The Fair Trade Zone: Becoming the World's First Worker Owner Free-Trade Zone. Managua: Center for Development in Central America. Available at: <http://jhc-cdca.org/GiveItYourAll/Complete.pdf>
- National Strategies for Sustainable Development. 2004. Costa Rica Case Study. Winnipeg: International Institute for Sustainable Development (IISD). Available at: http://www.iisd.org/pdf/2004/measure_sdsip_costa_rica.pdf
- North Central Regional Center for Rural Development. 1999. Measuring Community Success and Sustainability: An interactive Workbook. Iowa State University. Available at: <http://ncrcrd.org/LinkClick.aspx?fileticket=hkoHxss/CTI=&tabid=87>
- Organization for Economic Cooperation and Development (OECD). 2001. Strategies for Sustainable Development: Practical Guidance for Development Co-operation. Available at: <http://www.nssd.net/pdf/gsuse.pdf>
- Redefining Progress & Earth Day Network. Ecological Footprint Quiz. Interactive Footprint Calculator. Available at: <http://www.myfootprint.org/>
- Talberth, J., Clifford, C., & Slattery, N. 2006. The Genuine Progress Indicator: A Tool for Sustainable Development. Oakland, CA: Redefining Progress. Available at: <http://www.rprogress.org/publications/2007/GPI%202006.pdf>
- United Nations Environment Programme. 2002. Global Environment Outlook 3. Available at: http://geocompendium.grid.unep.ch/geo3_report/index_report.htm