SUMMARY CONCLUSIONS

Despite general acceptance as an academic rubric, sustainability remains an intellectually contested concept. The “shelf life” of sustainability as an organizing principle in academia remains unknown, but it has proved to be terminologically resilient.

Much of the current discussion around sustainability at the University of Florida is deliberately normative; Faculty and students at the University of Florida should be provided the space to question sustainability at the same time they are teaching and learning methods and means to operationalize it.

The University of Florida already has a robust sustainability program that has “self-organized” through the initiative of its faculty. This program compares favorably with peer institutions.

The UF School of Natural Resources and the Environment already provides an interdisciplinary intellectual home for university-wide academic sustainability. Its emphasis on the key dimension of environmental sustainability draws on one of UF’s historic strengths – the environmental sciences.

CENTRAL RECOMMENDATIONS IN A TIME OF ECONOMIC CONSTRAINT:

Priority #1: A graduate course that critically explores the dimensions of sustainability should be developed and included in the Interdisciplinary Ecology curriculum of the School of Natural Resources and the Environment.¹

Graduate programs in other units with certificates and concentrations related to sustainability should consider requiring this course if it were to be offered, or making it a preferred elective, if it makes sense to do so within the specific curricular track.

Priority #2: An academic advisor should be housed in SNRE or in the Office of Sustainability to facilitate student interest in sustainability and service learning opportunities, especially through the undergraduate minor in sustainability.

SUSTAINABILITY GENERALLY

Scholars generally agree that there can be no agreement on an accepted definition of sustainability.²

When the plethora of sustainability definitions is reduced to a common denominator they converge on little more than the notion that sustainability is about the anthropogenic future.³

¹One example of such a course was developed in the context of sustainability science by graduate students at Harvard University http://www.cid.harvard.edu/cidwp/grad/032.html
Another reductionist description contends that sustainability can be no further characterized than the preservation of human welfare over time.\(^4\)

Eventually, those seeking to operationalize sustainability in order to give it meaning seem to retreat to disciplinary or meta-disciplinary vocabularies (environmental, social, economic).\(^5\)

Definitionally, “sustainability” and “sustainable development” are conflated, though the latter appears to have preceded the former and arose in the specific context of international development, and carrying with it distinct connotations.\(^6\)

Despite broad and often uncritical acceptance of the sustainability paradigm, there are philosophers and ethicists who question sustainability’s basic assumption of an intergenerational obligation,\(^7\) and an implicit bias toward anthropocentrism.\(^8\)

One social justice advocate has questioned whether sustainability is the best last word as the guiding principle of intergenerational thought.\(^9\)

Some disciplinary discourse has characterized sustainability “as one environmental philosophy, [a]lbeit an important one…, among competing environmental philosophies.”\(^10\)

Sustainability can also result in, or give the appearance of, ideological capture\(^11\)

In the United States ideological criticism of sustainability comes from libertarian and conservative thought where some view it as an umbrella for promoting the progressive left agenda, especially when the dimension of social sustainability is added\(^12\)

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3 Bryan G. Norton, Sustainability, A Philosophy of Adaptive Ecosystem Management, 304 (University of Chicago Press, (2005)(It does, after all, have a clear core meaning: sustainable living is forward-looking living.)


5 Stephen MacKenzie, “Social Sustainability: Towards Some Definitions.” Hawke Research Institute, Working Papers # 27. (Inclusive definitions may call for interdisciplinary input and a cohesive view of the interrelation of nature, society and the economy, but the basic agenda of those who are performing the research, or profiting from its implementation, will quickly determine the real meaning of the work of any organisation in the field of sustainability.)

6 Wilfred Beckerman, The Impossibility of a Theory of Intergenerational Justice, in Handbook of Intergenerational Justice 53, 53 (Joerg Chet Tremmel ed., 2006) (“[A]ny attempt to establish our moral obligations to future generations on the basis of their rights is a futile enterprise. . . . This is because future generations cannot be said to have any rights.”); Richard T. DeGeorge, The Environment, Rights, and Future Generations, in Responsibilities to Future Generations: Environmental Ethics 157, 159 (Ernest Partridge ed., 1980) (“[Future generations] cannot be said to have rights in the same sense that presently existing entities can be said to have them.”); Ruth Macklin, Can Future Generations Correctly Be Said to Have Rights?, in Responsibilities to Future Generations, (“[T]he ascription of rights is properly to be made to actual persons—not possible persons.”); Thomas H. Thompson, Are We Obligated to Future Others?, 1 Alternative Futures 1 (1978).


8 Wilfred Beckerman, Sustainable Development and Our Obligations to Future Generations, In Fairness and Futurity: Essays On Environmental Sustainability And Social Justice 71, 85–92 (Andrew Dobson ed., 1999 (“[P]riority should be given to the relatively simple humanist objective of moving towards just institutions and a ‘decent’ society. This objective should replace egalitarianism or ‘sustainable development’ as our major obligation to future generations . . . .”).

9 Phil McManus, “Geography,” in John Blewitt & Cedric Cullingford, The Sustainability Curriculum: The Challenge for Higher Education 222 (2004)(Academic geography has tended to question the concept of sustainable development. …arguably geographers have been more critical than many other disciplines about the components that comprise sustainable development – namely the social, economic and environmental inputs.”)

10 J. Fortune & J. Hughes, “Modern Academic Myths,” in F.A. Stonewall et al Systems for Sustainability: People Organizations and Environments, 125-130 (1997)([Sustainability] is an empty concept, lacking firm substance and containing imbedded ideological positions that are, under the best interpretations, condescending and paternalistic.”)
Ironically, perhaps, in Europe sustainability criticism suggests that sustainability serves as the basis for an “extreme consensus” of incrementalism in order to preserve the prevailing development paradigm. This argument is also made by some “third world” scholars and advocates that “sustainable development” was contrived to continue the advance of colonial interests at the expense of the developing world.

This does not imply that sustainability should not be studied, even practiced, in an academic setting; only that it should not be presumed to be normative without serious consideration of the implications of this presumption. As one major public university characterized it in its sustainability self-assessment, “[t]here are sensitive issues in attempting to tilt an academic institution toward the challenges of the day, given the potential reinterpretation of the mission and the need to maintain true academic freedom.”

Academics have not yet resolved whether sustainability is a discrete discipline or a unique science, although this has not hindered it from being described as such. One of the foremost promoters of sustainability as science concedes that this remains a controverted proposition. Sustainability has also been characterized as a “meta-discipline,” a “delta-science” and “transdisciplinary.”

14 Bobby Banerjee, ‘Who sustains whose development? Sustainable development and the reinvention of nature’, Organization Studies, vol 24, no 2, 2003, pp 143–80. ([S]ustainable development, rather than representing a major theoretical breakthrough, is very much subsumed under the dominant economic paradigm. As with development, the meanings, practices and policies of sustainable development continue to be informed by colonial thought, resulting in the disempowerment of the majority of the world’s populations, especially rural populations in the Third World.”)
15 See J. Fortune & J. Hughes, “Modern Academic Myths,” in Systems for Sustainability: People, Organizations and Environments (Stowell, et. Al eds.)(1998); Clare Palmer, “Sustainability and Philosophy, in The Sustainability Curriculum: The Challenge for Higher Education (Belwitt & Cullingford, ed.s)(2004)(Sustainability and Sustainable Development are inherently ambiguous and contested terms, used in a variety of contexts to encourage and to legitimate some policies and practices, while discouraging and delegitimizing others….”);
17 Martens, P. 2006. Sustainability: science or fiction? Sustainability: Science, Practice, & Policy 2(1):36–41. (Sustainability science, however, is not an independent profession, let alone a discipline.”)
19 William C. Clark & Nancy M. Dickson, Sustainability Science the Emerging Research Program, Proceedings of the National Academy of Sciences (2003) available at (http://www.pnas.org/content/100/14/8059.full) (The term “sustainability science” has been controversial, connoting to some a mature discipline with shared conceptual and theoretical components that most certainly does not exist).
21 According to Nicolescu (1996) “transdisciplinarity is at once between the disciplines, across the different disciplines and beyond all disciplines. Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge.” http://www.cid.harvard.edu/cidwp/grad/032.html Interdisciplinarity refers to approaches that integrate datasets,
Sustainability has also been likened to “truth and justice,” “the Unity of Knowledge,” “an essentially contested concept,” and the philosophical construct of Weltanschaung (worldview).

DIMENSIONS OF SUSTAINABILITY

Sustainability has been characterized as a “three legged stool” whose dimensions reflect environmental, social and economic sustainability, typically graphically depicted as a Venn diagram shown by three co-equal interlocking circles each representing a leg of the stool with sustainability reflecting their intersection.

Some contest this simplification and the equality among the dimensions that it purports to represent.

Others express concern that conflating these dimensions creates an overly simplistic model of their interrelationships that masks differences between them, including the extent of acceptance.

Still others find that three legs are insufficient to support the stool.

Many ecofeminists, for example, contend that the social and economic spheres should be enveloped by the environmental sphere.

ENVIRONMENTAL SUSTAINABILITY

Much of the sustainability discourse originated with concern over protection of the biosphere and its role in sustaining humans.

Environmental sustainability is regarded by many as most mature and well-formed area of sustainability research

Many still perceive this to be the overriding emphasis of sustainability.

methods, tools, concepts and theories from different disciplines, as distinct from multidisciplinarity where the perspectives of each discipline remain apart and from transdisciplinarity, which cannot be reduced to individual disciplines; Bruun et al. 2005.


25 Sustainability as Weltanschaung is promoted by systems theorists who are followers of Karl Ludwig von Bertalanffy, one of the founders of modern systems theory. See: http://www.isss.org/projects/introduction_to_systems


27 Neil K Dawe, Kenneth L Ryan, “The faulty three-legged-stool model of sustainable development,” 17 Conservation Biology 1458-1460 (2003)(the environment is not and cannot be a leg of the sustainable development stool. It is the floor upon which the stool, or any sustainable development model, must stand. It is the foundation of any economy and social well-being that humanity is fortunate enough to achieve); Beate Littig and Erich Grießler, Social sustainability: a catchword between political pragmatism and social theory,” 8 International Journal of Sustainable Development, 65 (2005)(referring to “The myth about the three equal pillars of sustainability.”)

28 Peter Marcuse,“ Sustainability is not enough,” 10 Environment and Urbanization 103-111 (1998)

29 Jon Hawkes, The fourth pillar of sustainability: culture's essential role in public planning (Common Ground, 2001)

30 Margrit Eichler, Sustainability from a Feminist Sociological Perspective: A Framework for Disciplinary Reorientation, in Egon Becker & Thomas Jahn, Sustainability and the Social Sciences (1999)(“The ecofeminist literature (no matter from which stream) makes it abundantly clear (as does a lot of the non-feminist literature) that that to conceptualize aspects of the human system as co-equal with the environmental system or ecosphere is inappropriate.”)

31 C.V. Kidd “The Evolution of Sustainability,” 5 Journal of Agricultural and Environmental Ethics, 1-26 1992);
ECONOMIC SUSTAINABILITY

A Nobel prize winning economist contends that sustainability can only be understood as the preservation of sufficient capital to enable future generations to enjoy the same welfare as the current generation, and that the principle of substitution coupled with innovation can serve to ensure that exhaustible resources are replaced.32

An early use of the term in a purely economic development context originates in the founding instruments of the Organization for Economic Cooperation and Development (OECD), established in 1960 to provide for “the highest sustainable economic growth and employment in Member countries in order to stimulate employment and increase living standards.”33

Economic sustainability underpins the development of the “triple bottom line” approach to corporate management, where social and environmental sustainability receive consideration in corporate decisions in order to insure economic economic viability.34

SOCIAL SUSTAINABILITY

Social sustainability may be the least understood dimension of sustainability,35 the dimension that receives the least consideration when paired with other dimensions,36 as well as the one that generates the most controversy in its application.37

Social sustainability becomes particularly problematic when attempting to characterize it in terms of inherently subjective terms such as “well-being,” “quality of life, “equity, and “happiness.”38

Some view social sustainability as a field in its own right.39

35 Beate Littig and Erich Grießler, Social sustainability: a catchword between political pragmatism and social theory,” 8 International Journal of Sustainable Development, 65-67 (2005) (Ecological objectives seem to be the least disputed, followed by economic goals, but there is clearly a lot more disagreement about the definition of the main social objectives of sustainable development In case of objectives and indicators, it seems to depend on who defined them. Often, they comprise a theoretically unfounded selection of assumptions, goals, and indicators of socio-political provenance.)
37 Beate Littig and Erich Grießler, Social sustainability: a catchword between political pragmatism and social theory,” 8 International Journal of Sustainable Development, 65-67 (2005) (The difficulties in conceptualising social sustainability are also due to the fact that there is no clear differentiation between the analytical, normative, and political aspects thereof and that people may prioritise one over another).
STRONG AND WEAK SUSTAINABILITY

The integration of these dimensions of sustainability, particularly economic and environmental sustainability, has been characterized as a continuum where weak sustainability reflects a largely economic approach that argues for the maintenance of a non-declining stock of “aggregate welfare,” and strong sustainability reflects the separate consideration of preservation of “natural capital.”

One philosopher has argued that “normative sustainability” reflects an even stronger conception of sustainability because it allows for the inclusion of values and hence the intergenerational transfer of that which is protected by the present generation’s values.

OPERATIONAL SUSTAINABILITY

Many argue that sustainability is most easily understood when it is contextualized and operationalized, used as an adjective (sustainable energy), or in the conjunctive (sustainability and the built environment).

Most current academic programs appear to favor an operational approach to sustainability, where sustainability programs, centers and institutes are built around a discipline or meta-discipline.

SUSTAINABILITY EDUCATION AND ENVIRONMENTAL EDUCATION

“Controversy over differences between 'environmental education' (EE) and "education for sustainable development" (ESD)-or "education for sustainability"-ensued when the latter term came into use in the early 1990s. Some suggest that environmental education is part of education for sustainable development while others assert the opposite. Participants in a 1999 international on-line debate on ESD explored the implications of a new theoretical and practical definition of EE. Most participants regarded "ESD as the next generation of EE, which includes issues of ethics, equity and new ways of thinking and learning." Many saw ESD as "more future-oriented, critical of the predominant market and consumption driven society… and preoccupied with linking social, economic and environmental equity at the local, regional and global level."

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42 Simon Bell & Stephan Morse, Sustainability Indicators: Measuring the Immeasurable? (2008)(citing J.T. Heinan, “Emerging, Diverging and Converging Paradigms on Sustainable Development, International Journal on Sustainable Development and World Ecology, 22-23(“Sustainability must be made operational in each specific context (e.g. forestry, agriculture) at scales relevant for its achievement…”))
44 William C. Clark and Nancy M. Dickson Sustainability science: The emerging research program, 104 Proceedings of the National Academy of Science 1727-17380 (2007)(They are problem-driven, with the goal of creating and applying knowledge in support of decision making for sustainable development. Finally, they are grounded in the belief that for such knowledge to be truly useful it generally needs to be “coproduced” through close collaboration between scholars and practitioners.)
Most attribute the focus on sustainability in higher education to the United Nations Conference on Environment and Development in 1992,\textsuperscript{46} where the term “sustainable development” gained policy credence through a variety of hard and soft law agreements, including Agenda 21, which included a chapter on education.

**SUSTAINABILITY METRICS**

Sustainability is a fuzzy word. A fuzzy word can result in fuzzy metrics.\textsuperscript{47}

Sustainability metrics can include university operations, and academic programs, though most seem to focus on operations.\textsuperscript{48}

The primary promoter of measuring academic sustainability is the American Association on Sustainability in Higher Education, which unlike a traditional academic association adopts a normative approach that overtly promotes sustainability.\textsuperscript{49}

AASHE has developed and promotes a sustainability self-assessment rating system referred to as STARS and solicits feedback on iterative versions.\textsuperscript{50}

AASHE probably received the most negative feedback to STARS versions 0.4 and 0.5 in the areas of social sustainability indicators and those for academics, due to difficulties in assigning metrics as well as ideological concerns.\textsuperscript{51}

Although they reviewed the academic and curriculum sections of STARS, most reviewers in each version did not appear to be academics (3 were identified by the title professor in each version)

To its credit, AASHE did not go as far as some of the STARS version 0.5 reviewers sought in terms of promoting normative sustainability as an organizing principle of university academics.\textsuperscript{52}


\textsuperscript{47} Simon Bell & Stephan Morse, Sustainability Indicators: Measuring the Immeasurable? (2008) (Our key premise is that the approach to measurement is always based on an individual’s vision of sustainability which in turn can be changed depending on the measurement mindset); Michael Reclift, “Sustainability and Sociology: Northern Preoccupations,” in Egon Becker and Thomas Jahn, Sustainability and the Social Sciences (1999)(...[s]etting sustainability targets is inevitably a political exercise.”)(Quoting New Economics Foundation, “Sustainability Indicators” NEF, London (1994).


\textsuperscript{49} Compare: AASHE’s mission is to “promote sustainability in all sectors of higher education - from governance and operations to curriculum and outreach - through education, communication, research and professional development.” With, The American Political Science Association “will not commit its members on questions of public policy nor take positions not immediately concerned with its direct purpose” [to encourage the study of Political Science]. Art. II, Constitution of the American Political Science Association. Available at: http://www.apsanet.org/content_2857.cfm

\textsuperscript{50} http://www.aashe.org/documents/stars/STARS0.4commentsv2.pdf; http://www.aashe.org/documents/stars/STARS_0.5_Feedback.pdf

\textsuperscript{51} For example: Reviewer 17 to Version 0.4 contends: “It was my understanding that this was to be a technical document. It is not; rather it is a political document and there are way too many controversial positions taken in the document that will lose support for sustainability rather than garner support. If this document is supposed to be a political document, then I misunderstood its purpose and I would submit my resignation from the Technical Advisory Committee because I am not interested in pursuing the political aspects of sustainability.

Reviewer 33 to version 0.4 contends: “I was initially very, very interested in participating on the STARS TAC committee. Now I have reservations because of what I see as a definite political emphasis in the draft that overshadows the environmental aspects of sustainability.”

\textsuperscript{52} Reviewer 27 to version 0.5 suggested that universities “be encouraged to examine their existing curriculum to see if they have courses with content that undermines or provides flawed advice that would misdirect societal efforts towards achieving sustainability.” Reviewer 4 states: “ Regarding the % of courses that should include sustainability, if a course has not been
Faculty at the University of Florida do not have a common understanding of, and may not have a common belief in, sustainability. One UF faculty member has described it as a “trope.”

Adopting a University-wide definition of sustainability could make current and future faculty (and students) feel unwelcome at the University of Florida.53

The University of Florida should not require a sustainability course of all entering freshmen, though it could encourage this.

A 2009 update to a 2001 survey on campus sustainability conducted by the National Wildlife Federation concluded that the number of universities who reported requiring a course on sustainability for all students declined from 8% to 4%.54

Florida Gulf Coast University is one such university, requiring all students to complete a course entitled: “University Colloquium: A Sustainable Future.”55

Requiring a sustainability course could suggest that this course content is more relevant and important than a course in Civics, for example.56

Part of the impetus for a sustainability program at the University of Florida stems from the notion that faculty are encapsulated in disciplinary silos and do not collaborate with other disciplines. This conventional academic narrative should be revised.

Self-organized collaborations across disciplines occur all across the campus all of the time. This is especially true for sustainability related initiatives. These are increasingly promoted by external donor agencies such as NSF, and internal units such as SNRE and the Water Institute.

One UF faculty member elegantly characterized UF’s many Centers and Institutes as the “space between disciplines.”

In the tradition of one management philosophy57, UF is a complex organization that has already self-organized a robust and growing academic program in sustainability that includes courses, programs, centers, institutes & initiatives that link to varying degrees, economics, ecology and society, regardless of whether these use the term sustainability.58

53 See Jim Butcher, “Are You Sustainability Literate?”, Spiked, September 13, 2007 (commenting on the role of sustainability as an organizing principle in higher education in Great Britain) ("The overt promotion of sustainability (whatever it might be taken to mean) as the holy grail will only discourage students from raising doubts and differences of opinion because sustainability will be seen as the official line of the university.") (http://www.spiked-online.com/index.php?/site/article/3821/
UF’s academic sustainability program(s) is easily comparable to, and in different ways, superior to the program of one public university that holds itself out as the model for a “sustainable learning community.”

UF currently has 2 university-wide programs that explicitly adopt sustainability as an organizing principle:

1) An undergraduate minor in sustainability studies in CLAS, and

2) The School of Natural Resources and the Environment in IFAS has already branded itself as “A University-wide Program m in the Environment, Natural Resources and Sustainability.”

The SNRE doctoral program in interdisciplinary ecology is comparable in scope and disciplinary breadth with doctoral programs described as leaders in advanced sustainability education.

There is currently one college-wide major, and there are at least 7 graduate certificates and/or concentrations with “sustainability-focused” content at UF.

There are at least 7 centers and institutes and 13 programs or unit initiatives that have a significant sustainability focus at UF.

In the Spring of 2009 UF had at least 5 million dollars in interdisciplinary grant applications that utilize the term sustainability or its conceptual surrogates (2 NSF IGERT (engineering/business & Sustainable Energy Institute/multiple units, 1 MacArthur Foundation (Latin American & African Studies). Undoubtedly there are many more.

59 John Alber, Tom Kelly & Bruce Mallory, Eds. The Sustainable Learning Community: One University’s Journey into the Future (2009)
60 http://www.clas.ufl.edu/sustainability/
61 http://snre.ufl.edu/
62 UF School of Natural Resources and the Environment. Environmental problems are fundamentally human problems and should be understood in terms of human motivations and actions in a biophysical context. Their solution requires holistic thinking about dynamic ecological systems and the social, economic, and political forces driving human action. To this end, the goal of the Interdisciplinary Ecology graduate program is to provide advanced training in ecosystems thinking and the main theories and methodologies of the biophysical and social sciences to foster integrative approaches to complex real-world problems. Interdisciplinary Ecology students are intensely interested in the sustainability problem, and they welcome the challenge of addressing it through more than one traditional discipline.

The Sustainability Science Program at Harvard's Center for International Development seeks to advance basic understanding of the dynamics of human-environment systems; to facilitate the design, implementation, and evaluation of practical interventions that promote sustainability in particular places and contexts; and to improve linkages between relevant research and innovation communities on the one hand, and relevant policy and management communities on the other.

Arizona State University School of Sustainability. Our mission is to bring together multiple disciplines and leaders to create and share knowledge, train a new generation of scholars and practitioners, and develop practical solutions to some of the most pressing environmental, economic, and social challenges of sustainability, especially as they relate to urban areas.

Columbia University. The Ph.D. in Sustainable Development combines elements of a traditional graduate education in social science, particularly economics, with study in the natural sciences, to prepare graduates who will be uniquely situated to undertake serious research and policy assessments to further the goal of sustainable development. The program includes a set of rigorous core requirements in social and natural sciences, and provides students with the flexibility to pursue in-depth research in a broad variety of critical policy areas, deeply informed by an understanding of the natural processes that interact with social systems.
Since 2002 UF has produced 64 doctoral dissertations and theses that have the term “sustainability” in their title, and 92 doctoral dissertations and theses that have the term “sustainable” in their title.

One corollary to this is the University of Florida may not need to centralize its academic program in sustainability to enjoy a robust and expanding portfolio in academic sustainability.

Finding a niche for a new generalized academic program in sustainability at UF, while avoiding duplication, overlap and over-generalization could prove difficult.  

Recent efforts to create an interdisciplinary (or non-disciplinary) graduate concentration in sustainability foundered over questions of structure, governance and resources.

In addition, some graduate students expressed concerns related to conflict with other disciplinary certificates (including the many disciplinary sustainability certificates) and constraints on credit allocations within their disciplinary units.

At the same time, recent and threatened budget cuts have affected or may affect academic programs that advance or are in a position to advance sustainability discourse and research at the University of Florida.

For example, the Department of Religion was recently threatened with a significant reduction in its faculty. The Department’s Religion and Nature Program has been a key contributor to teaching and research in the field of environmental ethics and sustainability.

For example, the SNRE mini-grants competition was eliminated. According to its website: In five years, the SNRE Mini-grant Program generated more than $11.8 million in extramural and leveraged funding through an investment of $456K over three years; a return ratio of 27:1.

Non-tenure track faculty who are operationalizing sustainability in several Colleges appear to have the greatest employment risk in the current budget climate.

Social Sustainability.

Social sustainability at the University of Florida appears to reflect the status of this dimension within the sustainability triad more generally, with social sustainability enjoying a less cohesive presence and serving primarily to inform environmental sustainability programs.

Nevertheless, a leading example of an academic program at the University of Florida that fully integrates social sustainability is the Tropical Conservation and Development Program in the Center for Latin American Studies, where the social and natural sciences are explicitly coupled.

63 Diana Rhoten, Interdisciplinary Research: Trend or Transition, (BCS-0129573) National Science Foundation Biocomplexity in the Environment Program (July, 2008) http://publications.ssrc.org/items/items_5.1-2/interdisciplinary_research.pdf (interdisciplinary centers organized around large catch-all themes such as “global climate change,” “environmental impacts,” or “sustainable resources” often lack unified and unifying problem definitions and project directions); Julie Thompson Klein, ‘Notes toward a social epistemology of transdisciplinarity’ paper presented at the First World Congress on Transdisciplinarity, Convento da Arrábida, Portugal, 2–6 November 1994, http://perso.clubinternet.fr/nicol/ciret/bulletin/b12/b12c2.htm (“in attempting to construct a unifying perspective, such [transdisciplinary] projects ‘encounter the problem of holism’ and in reducing ‘all phenomena to one metaphor, theory, or ideology … risk becoming monolithic projects or closed systems”)

64 Lucas F. Johnson, The Religious Dimensions of Sustainability, PhD dissertation, Department of Religion, University of Florida (2009)

65 (The purpose of the SNRE-SFG is to provide funding for faculty to develop collaborative research and/or outreach/Extension proposals in new and emerging interdisciplinary activities to develop specific products in areas of cutting-edge importance to natural resource and environment issues at the state, national, and international level, or taking a cross-cutting perspective on historically important issues (i.e., new way of looking at old problems)).
The TCD Program is conceptualized as a training program in development assistance to tropical countries and operationalized through applied community based field work.66

Through a pending external grant proposal, the TCD Program has proposed the creation of a new Master’s Degree in Sustainable Development Practice at UF that will likely receive external funding from the MacArthur Foundation.

Service Learning and Sustainability

Service learning offers students opportunities to operationalize sustainability on campus and in the community.67 It can be provided at the undergraduate and graduate level and there are significant distinctions between the two.68

The University of Florida offers myriad opportunities for ad hoc and programmatic service learning in multiple colleges. Many of these are explicitly focused on sustainability.69

66 http://www.latam.ufl.edu/tcd/ “Since the mid-1980s, the Tropical Conservation and Development (TCD) Program has drawn on multiple disciplines, methods and skills to understand and address the challenges of tropical social-ecological systems. TCD’s mission is to bridge theory and practice to advance biodiversity conservation, sustainable resource use, and human well-being in the tropics. TCD’s main goals are:

1. To train graduate-level professionals, particularly those from developing countries, to bridge theory and practice and learn across disciplines;
2. To promote cross-national, integrative, comparative problem-centered research;
3. To strengthen and expand learning and action networks.”

69 See Melissa Hochmuth, Analysis of Undergraduate Service Learning, Internship, and Individual Work Opportunities at the University of Florida, University of Florida Conservation Clinic (2008)