

Sarah Blanton, PT, DPT, NCS
Assistant Professor
Doctor of Physical Therapy Program
Department of Rehabilitation Medicine
Emory School of Medicine

10 June 2014

Sustainability Focused

DPT 970 Directed Study Elective

Sub-theme: Sustainability Concepts in Physical Therapy Education and Clinical Care

Sustainability Related

DPT 700 Health Promotion: Individual

Self-study activity

I attended the sustainability curriculum workshop with the intention to develop a new elective in the Division of Physical Therapy Program – specifically a sub-series of directed study courses characterized by a sustainability theme targeted for physical therapy students. The current curriculum involves prevention and wellness education but demands of a dynamic healthcare system and complex medical environments require our profession to draw on interdisciplinary collaborative approaches to broaden the scope of awareness in rehabilitation and begin to incorporate concepts of sustainability into physical therapy education. The Piedmont Project offered a rich opportunity to develop progressive and innovative perspectives in our educational content. Attending the workshop was an incredibly valuable experience from a multitude of perspectives. Echoed among attendees was a unifying theme of the benefits of a forum for interdisciplinary collaboration, creative problem-solving and a collective vision for sustainability strategies throughout each of our diverse teaching roles. I came away from the presentations and group conversations with a much greater appreciation of the ubiquity of the concept of sustainability and a deep respect for the role Emory University plays as a leader in the nation, being not only a “green school” but a model in faculty education. The format and guidance of the course enabled me to create a vision for creative avenues for our Doctor of Physical Therapy program, to foster innovation and to lead the charge for the development of sustainability concepts in the field of physical therapy education and clinical care.

Within our program, the directed study elective option is offered during the student’s last year. The directed study elective provides the student with specialized learning experiences related to the student’s interests which may not be available through formal course offerings. Providing the creative freedom to choose the course topic and patient population, the student drives the content and direction of the learning experience. The proposed new course elective - *Sustainability Concepts in Physical Therapy Education and Clinical Care* - would require the student to use the following framework to shape their learning objectives: 1) identify an interdisciplinary approach to address the problem; 2) use learning on campus or in Atlanta as a means to develop strategic action plans; and 3) use a team teaching approach by identifying a PT faculty advisor and a non-PT, content advisor to co-direct the elective. This specialized sub-series directed study course will allow physical therapy students the opportunity to gain a greater understanding of the ethical obligation of

sustainability and consequently how this perspective can transform the traditional role of a physical therapist into facilitating a multidimensional approach to public health and wellness.

A unique aspect of this course involves the role of students in the initiation, development and sustainability of the content and outcomes. The actual creation of the course *Directed Study Sub-theme: Sustainability Concepts in Physical Therapy Education and Clinical Care*, along with the outline and objectives, was the product of a graduate student's directed study elective (Carmen Wurtz, SPT). She assisted in the proposal writing, researched initial readings for the class, assisted in the development of a course website and will submit an abstract describing her work in collaboration with her advisor (Dr. Blanton) for presentation at a Physical Therapy regional or national conference. Collaborating with consultants from Emory Digital Scholars Center, a Wordpress/Scholarblog website will be developed to house the sub-themed directed study elective course materials, suggested and required readings, resource links for sustainability information, and the project outcomes from each student participating in the directed study. In support of the Emory Open Education Initiative, we will encourage the use of open educational resources (OERs) and library materials to support student learning in the course. Students will be required to identify and address strategies to support sustainability on four levels: 1) individually, 2) within DPT curriculum/program activities, 3) professionally (either in a clinic setting or broadly across PT profession, and 4) on civic/community level. The primary focus of their project will be related to sustainability and PT and the student will identify the method of dissemination of their project (manuscript submission, poster presentation or faculty presentation). Additionally, each student will be required to write a narrative reflection paper describing the impact of this course participation on their perspectives and actions related to these various levels of engagement. In the spirit of sustainability, students are encouraged to "leave the course better than you found it", continually building upon content, vision and resources for the next set of students.

Understanding that a directed study elective is not designed for inclusion of all students, we have provided an additional opportunity for introduction of sustainability concepts during the first semester coursework. All students are required to take "DPT 700 Health Promotion: Individual". In this course, we have created a self-study exercise in which components of the directed study outline will be presented to the students so that they may: 1) gain a working definition and understanding of sustainability and how these concepts relate to healthcare, 2) become aware of the Sustainability Vision for Emory University, and 3) perform a self-assessment of their own sustainability practices on an individual level and DPT program or community level.

Finally, the class of 2017 has been officially declared the "first Green DPT class" and will form a student sustainability committee to help spearhead and organize projects as well as be liaisons with the faculty regarding student developed initiatives.

Ultimately, the goal of these courses is to broaden understanding of the concepts of sustainability in the physical therapy profession, create a rich breeding ground for innovative ideas to implement sustainability strategies locally and globally and provide opportunities for interdisciplinary collaboration to implement these strategies.

**EMORY UNIVERSITY
DOCTOR OF PHYSICAL THERAPY**

COURSE SYLLABUS

COURSE NUMBER AND TITLE:

DPT 700 Directed Study: Sustainability Concepts in Physical Therapy Education and Clinical Care

DESCRIPTION OF DIRECTED STUDY

Directed study provides the student with specialized learning experiences related to the student's program, which are not available through formal course offerings. In that way, directed study complements course work rather than replacing or substituting for course work. The directed study should be completed in one semester the same as any other course.

Directed Study is planned, implemented and evaluated by the student and an appropriate advisor (may be physical therapy or non-physical therapy faculty).

DESCRIPTION OF DIRECTED STUDY, SUB-THEME: HEALTH AND SUSTAINABILITY

Voted the "Best Higher Education Institution – Green Schools" in 2013 by the national Center for Green Schools, Emory University has identified sustainability as one of its top priorities. "Sustainability is defined as meeting the needs of the present generation without compromising the needs of future generations." Overarching goals to help restore the global eco-system, foster healthy living and reduce the university's impact on the local environment drive the multiple sustainability focused initiatives across campus. Leading the nation in faculty education and development, Emory's Piedmont Project offers cross-disciplinary workshops to foster sustainability themes throughout university curricula which led to the development of this sub-themed directed study addressing sustainability concepts in physical therapy. The structure of the course supports a deeper understanding of health "within the context of social and ecological environments to encourage a holistic and person-centered approach in clinical practice." The ultimate goal of this course is to empower students to develop their own course of study involving health and sustainability that contributes to Emory's commitment to positive transformation in the world.

Sustainability Concepts in Physical Therapy Education and Clinical Care Directed Study Course Elective will require interdisciplinary approaches and engaged learning on campus. The student is given the creative freedom to choose what population and which facets of interdisciplinary teams to incorporate when developing a program that incorporates sustainability with guidance from a physical therapy faculty advisor and non-physical therapy faculty advisor.

The student will explore the role and importance of physical therapy in healthcare and sustainability. The course will guide the student on how to address sustainability on four levels: 1) individually, 2) within DPT curriculum/program activities, 3) professionally (either in a clinic setting or broadly across PT profession, and 4) on civic/community level. The primary project focus will be related to a student-identified topic of sustainability and how it is pertinent to PT. The student will choose the method of dissemination of their project (manuscript submission, poster presentation or faculty presentation). Additionally, each student will be required to write a narrative reflection paper describing the impact of this course, specifically how their

perspectives and actions related to these various levels of engagement have changed or evolved. In the spirit of sustainability, students are encouraged to “leave the course better than you found it”, continually building upon content, vision and resources for the next set of students.

The directed study course will provide physical therapy students the opportunity to see the ethical obligation of how sustainability can transform the traditional role of a physical therapist into facilitating a multidimensional approach to public health and wellness.

PROCEDURE

The steps to be followed by the student in undertaking a Directed Study are as follows:

A. Prior to enrollment in the Course:

1. Identify an area of study of interest related to your program of study.
2. Determine objectives you wish to accomplish through the study.
3. Make certain no courses are being offered through which the objectives could be accomplished.
4. Consult your faculty advisor
 - i. Regarding feasibility of the study
 - ii. For suggestions for a Directed Study Advisor (only if the advisor is not on faculty)
5. Faculty advisor will make arrangements for initial contact with the potential directed study advisor in consultation with the clinical education coordinator if necessary.
6. Finalize the directed study objectives, the study plan, and the number of credits, with the approval of the directed study advisor.
7. Submit two typewritten copies of the directed study proposal to the directed study advisor, if that person is an in-house faculty member.
8. The directed study advisor and/or the student presents the proposal to the Associate Director for review.

B. Enroll (performed by the Administrative Assistant)

C. Conduct the Directed Study as planned

D. Evaluation- Submit a final written report to the directed study advisor no later than one week after the end of the directed study. Use the format for FINAL WRITTEN REPORT OF DIRECTED STUDY for necessary inclusions in the report. Any products of the Directed Study should be included. All materials should be in duplicate. If the directed study advisor is not in-house faculty, one copy is submitted to the faculty advisor. The directed study advisor will be responsible for giving the final evaluation conference and grade. Also, the directed study advisor is responsible for presenting a report to the Associate Director.

OUTLINE FOR DIRECTED STUDY PROPOSAL

The following should be included in the Proposal for Directed Study:

1. Name of Student
2. Name of Advisor of Directed Study
3. Title of Directed Study
4. Credit Hours*
5. Overall Objectives
 - a. Sub-objectives
6. Plan for carrying out the Directed Study
 - a. Activities of the student
 - b. Activities of the advisor
7. Materials and/or resources needed
8. Evaluation
 - a. Method of evaluation
 - b. Criteria, if not stated in sub-objectives
9. Statement of the relationship of the Directed Study to the student's overall program of study

*Credit Hours are determined with the following formula and should be agreed upon with the advisor according to the proposed amount of time and effort the study will require:

1 hour credit is equal to one contact hour per week with two hours outside preparation for each contact hour.

**FORMAT FOR FINAL WRITTEN REPORT
OF DIRECTED STUDY**

Student _____ Date _____

Advisor _____ Title _____

Credit Hours _____

Title of Directed Study _____

1. Overall Objective
 - a. Summary of the accomplishments achieved in the study and extent of achievement of objectives and criteria.
2. Conclusions and/or Recommendations
3. Negotiated Grade
4. Materials or Products of the Directed Study, a copy to be provided to the Directed Study or faculty advisor, as per the Directed Study guide.

COURSE OBJECTIVES

Prior to completion of the course, the student will be responsible for utilizing readings and self study in order to:

1. Articulate a working definition and understanding of sustainability, including the concepts of the “Triple Bottom Line” – Ecological, Economic and Social System goals.
2. Review the Sustainability Vision for Emory University, including goals and recommendations from the following areas:
 - a. Healthy Ecosystem Context
 - b. Healthy University Function in the Built Environment
 - c. Healthy University Structures, Leadership and Participation
 - d. Healthy Living-Learning-Working Community
 - e. Education and Research
3. Describe what it means to be a “citizen of place” and how that may impact the physical therapy profession and/or provision of care.
4. Identify the difference between “ego-centric” and “eco-centric” approach to medical practice and how that may impact physical therapy care.

Prior to completion of the course, the student will build upon self-study/course readings in order to:

5. Determine the primary project focus of the directed study, identify and explain the relationship between society economics and the environment of a given problem from the physical therapy profession and elaborate on possible solutions for the problem. Outcomes from the primary project will describe opportunities for the physical therapy profession to better meet the needs of society through strategies supporting sustainability initiatives.
6. Apply the following framework to develop the learning objectives of the directed study: 1) identify an interdisciplinary approach to address the problem; 2) use learning on campus or in Atlanta as a means to develop strategic action plans; and 3) use a team teaching approach by identifying a PT faculty advisor and a non-PT, content advisor to co-direct the elective.
7. Develop increased awareness of thoughts, actions and responsibility in order to cultivate habits of effective, sustainable living. “*We must be the change we wish to see in the world.*” - Ghandi
 - a. By the end of the course, identify ways to address sustainability on four levels:
 - i. Individually
 - ii. DPT curriculum and/or program activities
 - iii. Professionally (either in a clinic setting or broadly across PT profession)
 - iv. Civic/community

Note: The primary project focus should be on organization/profession/civic level.
8. Disseminate outcomes of project. Final project dissemination method, determined by student and faculty advisor, can be: 1) manuscript (suitable for possible journal submission), 2) poster presentation or 3) presentation to faculty/community audience.

9. Compose a 2-3 page narrative reflection paper describing the impact of this course participation on their perspectives and actions related to these various levels of engagement relating to sustainability concepts.
10. To support the sustainability theme of the directed study by leaving the course “better than you found it” by:
 - a. Providing at least 2 recommended readings to add to the pre-established “Required Readings List”. The readings will provide a physical therapy student with additional resources to enhance the understanding of sustainability in healthcare.
 - b. Provide a summary of primary project under course resources link on directed study website for other students to review.
 - c. Share reflective narrative paper under course resources on directed study website for other students to review.

Course Requirements:

Within the first two weeks:

1. The student will “Make A Pledge” by visiting: <http://sustainability.emory.edu/>
 - Purpose: This is a personal pledge to address energy, sustainable food, water conservation, green space, commuting, recycling, and other sustainability issues when at Emory and at home.
 - Refer three other people to take the pledge.
 - While Emory University has committed itself to achieving overall sustainability, it will take the active participation of the entire Emory community to pitch in, turn off, conserve and re-evaluate daily habits for Emory to realize its vision.
2. The student will take the “Ecological Footprint Quiz” by visiting: <http://www.myfootprint.org/>
 - Purpose: The Ecological Footprint Quiz estimates the amount of land and ocean area required to sustain your consumption patterns and absorb your wastes on an annual basis. After answering 27 easy questions you’ll be able to compare your Ecological Footprint to others’ and learn how to reduce your impact on the Earth.
3. The student will determine a working definition and understanding of sustainability (example below):

What is sustainability?

 - “Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.” – EPA webpage <http://www.epa.gov/sustainability/basicinfo.htm>

By end of the course:

4. Submit 2-3 page narrative reflection paper.
5. Identify and discuss with faculty advisor strategies/actions to address sustainability on the defined four levels.
6. Determine, develop and initiate implementation of primary project
7. Finalize dissemination of primary project (paper, poster, presentation) for final grade, determined by PT faculty advisor and non-PT faculty advisor.

RECOMMENDED READINGS LIST

- <http://sustainablehealthcare.org.uk/ot-susnet>
- Individual
 - “ ‘Going Green’ at Home” <http://www.epa.gov/region03/green/home.html>
- Emory University, Sustainable Food Committee. “Eating Sustainably: An Introduction to Sustainable Food.” Dec. 2011
<http://sustainability.emory.edu/uploads/articles/2012/02/2012022112281530/Sustainable_Food_Information_Booklet.pdf>.
- Whittaker, Ben. “Utilising the ‘NHS Route Map for Sustainable Health’ in Occupational Therapy.” Centre for Sustainable Healthcare. NHS (2013).
- Hopwood B, Mellor M, O’Brien G. Sustainable Development: Mapping Different *Approaches*. *Sust. Dev.* 13, 38-52 (2005).

Course Examples (Carmen Wurtz, SPT class 2014):

Individual

- In addition to the changes made on the Emory Pledge, I will
 - Recycle all light bulbs by bringing them to participating Lowes/Home Depot

DPT program

- Development of PHT 967R Directed Study -Sub-theme: Sustainability Concepts in Physical Therapy Education and Clinical Care
 - Create outline, develop course objectives, collect resource readings

Civic/Community

- Support local farms – Encourage Emory DPT to use more local farmers who promote sustainability and natural products.
 - **Highland Bakery**
 - Address: 655 Highland Avenue NE, Atlanta, GA 30312
 - Phone: 404-586-0772
 - Menu for catering: <http://highlandbakery.com/catering.html>
 - Sweet Tomatoes
 - Address: 6350 Peachtree Dunwoody Rd NE, Atlanta GA 30328
 - Phone: 770-913-0203
 - Menu for catering: https://catering.souplantation.com/index.cfm?fuseaction=order&product_group_id=18
 - Radial Café Catering Kitchen
 - Address: 1530 Dekalb Avenue, Atlanta GA 30307
 - Phone: 404-659-6594
 - Menu for catering: <http://radial.us/catering/menus.html>
 - Parsley's custom catering
 - Address: 1127 White Circle NW, Marietta GA 30060
 - Phone: 770-396-5361
 - Menu for catering: <http://www.parsleys.com/index.html>
 - Organic Eatz
 - Address: Atlanta
 - Phone: 404-429-4339
 - Website for catering: http://www.organiceatz.com/Home_Page.php
- Other Examples:
 - “In the Community” <http://www.epa.gov/wastes/wycd/incommunity.htm>

PT Profession (Primary Goal)

- Assist in planning and implementation of DPT Symposium “Role of PT in Prevention and Treatment of Childhood Obesity”
- Develop an alternative dissemination method for conference proceedings that supports the sustainability of strategic plans created through conference attendees and faculty. Working with Emory Digital Scholars Center, created website to house conference presentations for use by attendees, support broad distribution of conference proceedings and facilitate interdisciplinary collaborations to address strategic initiatives.