

**Full Course Title:** Solar One: Scaling and embedding the Green Design Lab: a successful green / energy education program in NYC schools

**Course Title for Registration System:** Solar One: Green Design Lab

**Course Number:** SIPA U9000.016

**Faculty Advisor:** Kevin Kelly

**Columbia Email Address:** kgk13@columbia.edu

**Meeting Day / Time:** Wednesdays from 6:10 pm to 8:00 pm

**Location:** 409 International Affairs Building (IAB)

**Office Hours:** Wednesdays from 8:00 pm to 9:00 pm, room 1309, IAB

**Credits:** 3

**Course Overview:**

**Brief description of client:** Solar One is a young, entrepreneurial and nimble nonprofit based in New York City and focused on sustainability (“green”) education and advocacy. The organization designs and runs programs for New Yorkers aged five to 105 including in-school education, job training, outreach and cultural programs while also maintaining one of New York’s most unique public “green” spaces at Stuyvesant Cove Park on the East River at 23<sup>rd</sup> Street. Solar One has become a key player in the local nonprofit environmental education and energy space. It is expected that the organization will continue on this path and be a key player on a national level within the next several years. Solar One employs approximately 40 full and part-time staff and has an annual budget of \$2.3 million.

**Summary of project:** Solar One’s Green Design Lab (GDL) education program is Solar One’s fastest growing program and the organization’s future plans for it are ambitious. Based on the 2010-2011 pilot program results and the enthusiasm schools are showing for the coming year (applications jumped from 11 in 2010 to 67 in 2011), we believe we can significantly increase energy and sustainability literacy with children from K-12, change their behavior regarding energy use and as a result, reduce energy use in NYC schools.

Solar One staff are working to create a long-term expansion plan aiming to 1) **integrate and embed the program first into the New York City school system** and 2) **scale the program nationally in the near term.**

**Deliverables to client:** Crafting an actionable long-term expansion plan for GDL will involve understanding how the program is currently being implemented, how to better align the program with NYC Department of Education and overall governmental goals (including curriculum, PlaNYC, greening goals and student achievement) and thus make the program a valuable resource for all NYC schools and eventually, a valuable resource for school systems nation-wide.

The deliverables for this project are:

1. **Baseline Analysis** on how GDL is currently being implemented, its cost and operational structures, how its curriculum aligns with the Common Core Standards and case studies of other successful NYC-based nonprofits which have more permanently integrated their programs into PlaNYC and the NYC Government in general.
2. **Final Report** including set of actionable recommendations, with specific opportunities for creating scale economies, and an associated implementation plan based on these findings for how the GDL can accomplish its long-term goals of integrating the GDL program into the New York City school system and eventually into the national education system.

**Special skills / knowledge needed by team members:** No special skills are required. The Solar One Capstone Workshop will particularly appeal to students interested in strategy consulting, operational and strategic analysis, issues of environmental sustainability, education, non-profit growth management and non-profit financial sustainability. Valuable skills for this project include: research skills, interviewing and communication skills, analytical thinking, strong organizational skills and the ability to think both creatively and strategically. Students with New York City government experience, former teachers and / or students with interest in / experience with curriculum development experience as well as those students with experience scaling non-profit programs would bring valuable skills and experience to the Solar One Capstone Workshop.

**Initial meeting(s) with your student team in late November or early December, if applicable:** Initial Solar One / Capstone Faculty Advisor meeting with Capstone Workshop students - week of December 12<sup>th</sup>, 2011

**Dates for meetings with client, if already scheduled):**

- Friday, January 20<sup>th</sup>, 2012 – Solar One senior leadership kick-off meeting with Capstone Workshop students and Capstone Faculty Advisor
- Friday, March 2<sup>nd</sup>, 2012 - Midterm meeting with Solar One to present midterm draft report and baseline analysis
- Friday, April 27<sup>th</sup>, Final report and baseline analysis due / presentation of key findings to Solar One

**Field component:** There will be visits to schools in NYC.

**Student selection:** All eligible students may apply for up to five workshops through a special online application process in October. Assignment of students will be coordinated by the Office of Academic Affairs, and relevant faculty will be consulted about team membership for their workshop(s).

**Grading (students receive an individual grade):** Grades for the workshop will be based on the following criteria:

Quality of individual written work (15%)

- Quality of participation in class, peer review (25%)
- Feedback from the client (15%)
- Overall professionalism, including timeliness, ability to work with team, etc. (20%)
- Quality of team's final report and briefing (25%)

**Readings:**

Required readings - to be read before the spring 2012 semester starts

- Good to Great: Why Some Companies Make the Leap - & Others Don't - Jim Collins
- Good to Great & the Social Sectors: Monograph to Accompany Good to Great - Jim Collins
- Reengineering the Corporation - Michael Hammer & James Champy

Additional readings - can be read during the spring 2012 semester

- TBD

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