

## **Program in Sustainable Development**

### **Frequently Asked Questions**

#### **What is “sustainable development”?**

The definition used by the Earth Institute, Columbia University, puts equal emphasis on “sustainability” and “development.” “Sustainable” refers to managing the world’s economy in a manner consistent with the continued healthy functioning of Earth’s ecosystems, oceans, atmosphere and climate. “Development” refers to continued social, political and economic progress aimed at the improvement of global human well-being, especially for the poorest of the poor.

Achieving sustainable development requires holistic and integrated approaches, due to the complex interplay between the planet’s natural and social systems.

Today, over 1 billion people live on less than \$1 a day, and life expectancy in nine African countries is less than 40 years. Meanwhile, the actions of the rich world, such as loading the atmosphere with carbon dioxide, are compromising the well-being of future generations and pushing our planet toward an uncertain future.

Global pandemics, climate change, natural disasters, poor soil conditions, deforestation — these issues are at the heart of sustainable development.

#### **What is the Earth Institute?**

The Earth Institute is made up of over 30 research centers and programs (housed both on the Morningside campus and at the Lamont campus in Palisades, N.Y.) and emphasizes a cross-disciplinary approach to solving complex problems associated with Earth, the environment and society.

While students do not apply to the Earth Institute or become students at the Earth Institute, it maintains academic relationships with numerous departments on campus, and these departments collaborate with the Earth Institute to provide academic programs, activities, lectures and events that seek to incorporate and advance the goals of both the Earth Institute and the respective academic departments and their students.

In doing so, we are able to offer programs such as a major and a special concentration in sustainable development, wherein students can incorporate courses in the earth and biological sciences, engineering sciences, social sciences, and health sciences so as to gain a comprehensive understanding of what sustainable development entails, as well as to tailor the program to their own interests.

#### **What is the difference between the major and the special concentration?**

The major requires 15 classes and a practicum for a total of approximately 47 points, while the special concentration requires nine classes and a practicum for approximately 20 points. The special concentration is modeled after the major but is intentionally more flexible. Its structure allows students to benefit from cross-disciplinary courses and to build the expertise to address the fundamental issue of how to move toward a trajectory of sustainability.

### **Can I graduate with just a special concentration?**

No. A special concentration is not a standalone major or concentration; it is intended to serve as a complement to the disciplinary specialization and methodological training inherent in a concentration or major. In addition to the special concentration, students must complete a major or full concentration. As of Fall 2010, a full major in sustainable development is available to students. Students may graduate with either a major or a special concentration in sustainable development, but not both.

### **Why a special concentration and not a concentration?**

This program is meant to be paired with a second program in order to ensure that students have depth in addition to the breath provided by the special concentration.

### **Can juniors and seniors take the special concentration?**

It is strongly advised that juniors and seniors consult with their advising dean before deciding to declare a special concentration. The special concentration requires nine courses (not credits) and a practicum; many seniors would not have time in their final year to complete this coursework.

### **Can courses count for credit toward more than one major/concentration/special concentration?**

No. It is the policy of both Columbia College and the School of General Studies that there cannot be overlap between courses used for majors/concentrations/special concentrations. Students should refer to the bulletins of their specific schools for additional information:

[Columbia College Bulletin](http://www.college.columbia.edu/bulletin/requirements.php) <http://www.college.columbia.edu/bulletin/requirements.php>  
[General Studies Bulletin](http://www.gs.columbia.edu/major-requirements#double) <http://www.gs.columbia.edu/major-requirements#double>

If you have questions, please contact your advising dean.

### **Can the courses for the major be taken by students in the special concentration?**

Yes. Concentrators may take any of the natural science, skills/actions, and analysis and solutions to complex problems courses required for the major.

### **Why are the natural science requirements for the major and the special concentration different?**

Students in the major are required to take a sequence of natural science courses as part of the basic disciplinary foundation requirement. This is to allow students in the major to develop more depth in a particular subject area. Special concentrators are not required to do this, but in fact many of the natural science course options they have are one course of a two-semester sequence.

Students should note that for the major, EEEB W2002 Environmental Biology is the same course as EESC V2300. In addition, students who take the Engineering Science sequence may not also take the 4000-level Alternative Energy Resources class to fulfill

the Complex Problems requirement. Students who choose Alternative Energy Resources as one of their Complex Problems classes must take it at the 4000-level.

**Can the SEE-U course be taken as six credits?**

Yes. If students in the major or the special concentration take SEE-U as a six-credit course, they can use three credits towards the Complex Problems requirement and three credits towards the Skills/Actions requirement. If SEE-U is taken for three credits it will count as one Complex Problems class.

**Do any of the courses required for the major and the special concentration fulfill the Columbia Core?**

Yes. Science for Sustainable Development fulfills the Columbia Core science requirement, as do some of the natural science courses. Students should refer to their school bulletins for specific courses that fulfill their science requirement.

**Is there a list of approved electives?**

Yes. This list is currently being revised and once it is finished, will be posted on the Programs of Study section of the Undergraduate Program in Sustainable Development Web site.

**Are the major or the special concentration available to Barnard and SEAS students?**

The special concentration and the major are currently only available to students from CC and GS. Students from Barnard should contact Professor Stephanie Pfirman and SEAS students should contact Professor Patricia Culligan for more information about declaring the special concentration.

**Is there a deadline to declare the major or special concentration?**

Typically, students declare their major or concentration (and any special concentration) at the end of their sophomore year. Students in the School of General Studies may declare a major or concentration online during the months of March and October. Columbia College students declare through the Center for Student Advising. Juniors and seniors who have already declared their major or concentration can also still declare the special concentration by visiting the Registrar's Office. Students need to have departmental approval to declare the special concentration and should have their approval forms signed by the program director or the program manager, who is located in the Office of Academic and Research Programs (Hogan Hall).

**Is it possible to substitute other Columbia courses for the ones on the list for the major and the special concentration?**

Course substitutions are not permitted. While there are undoubtedly many Columbia courses that are similar in content to the courses required for the major and the special concentration, the program has been structured to ensure that students graduate with a well-rounded education and a working knowledge of the subjects that Earth Institute faculty have identified as critical for success in the field. The courses were specifically

designed and selected to provide a holistic skill set and, therefore, we do not allow course substitution.

### **Can my internship count towards the practicum requirement?**

Students in both the special concentration and the major are required to complete a practicum. Students may wish to substitute a related, approved internship for the practicum requirement. Typically, students are not allowed to get credit for an internship; however, if the student presents a strong case they may use the internship *only* if they enroll in an independent study course for which they must write a paper and get a letter grade.

### **Can graduate students declare the special concentration in sustainable development?**

This is specifically an undergraduate program. However, the School of International and Public Affairs does offer a Ph.D. in Sustainable Development for graduate students who are interested in the field.

### **What should I do if I am having difficulty registering for courses?**

Students who have trouble registering for courses should contact the course instructor and let them know they are part of the special concentration; the instructor will be able to grant access to the course.

### **Does the program place a greater emphasis on the social or environmental sciences?**

The answer is simply: both. To be prepared to participate in the field of sustainable development, students need a strong foundation in both of these areas and then must concentrate on the unique interactions between them. The more subtle emphasis among the various fields can then be directed by the student and their advisers to fit their interests and career plans. Ultimately, the program's flexibility in this regard is one of its strengths, allowing you to tailor your education to fit your interests.

### **Can I study abroad?**

Yes, and we encourage students to study abroad. The best place to get information is from the study abroad office of your school. Courses accepted by the University for credit can be applied toward the major by working with your program adviser to find logical substitutions within the curriculum.

### **Is there a list of approved study abroad programs?**

Yes. Please visit the Beyond the Classroom section of the Undergraduate Program in Sustainable Development Web site. You may also check with the study abroad office of your school for additional updates.