

**JUST DIRT? SOILS AND HUMAN AFFAIRS**  
**FRPG 188N**  
**SPRING 2009**

Wednesday 1:15-4:15 - JHS 105  
Friday 1:15-2:45 - JHS 105

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Mentor: Cameron Bruns

Mentor office hours: S 7:00-9:00PM, M 7:00-9:00 PM in Lauanders Science Library (Madill)

**COURSE OVERVIEW**

Did you know that soil degradation by humans was a major factor leading to decline of the great Sumerian civilization in Mesopotamia, the so-called cradle of civilization? Did you know that soil degradation in the southeastern United States may have contributed to the U.S. Civil War? Did you know that soils are a vast reservoir of Earth's species, many of which are yet to be named?

Soils are our most essential natural resource because they provide us with most of the foods we eat. Organisms in soils, many microscopic, break down "dead stuff" thereby providing essential nutrients for crops. Modern agricultural practices have led to a dramatic loss of soils in countries like the United States, and degraded soil is one of the fundamental causes of poverty in developing countries. In this course, we will critically examine the relationship between humans and soils. First, we will gain a basic understanding of how soils work. Second, we will seek to understand how cultivation of soils has led to the rise and fall of many of the world's great civilizations, and how our current misuse of soils threatens our capacity to produce food. Finally, we will investigate how soils influence our daily lives from backyard gardening and composting to large-scale agribusinesses.

Class discussions on the content work of the course generally will occur on the Friday session and sometimes at the beginning of the Wednesday session. Most of the Wednesday session, however, will be devoted to working with soils and developing your communication and research skills. You will "get dirty" and work with soils to gain an appreciation of why soils are so important to all of us. As an extension of the FYP you participated in last semester, you also will continue sharpen your communication skills (i.e. reading, listening, writing, speaking). You will also learn how to do effective research by completing a research project in several steps.

**FIRST-YEAR PROGRAM PHILOSOPHY AND GOALS**

A residentially-based, interdisciplinary first-year program is an ideal environment for beginning the four-year process of developing the complex intellectual and social skills that are at the heart of a liberal education and the habits of considered values and engaged citizenship that such an education should produce. The First-Year Program (FYP) and First-Year Seminar (FYS) are the core of our institutional commitment to improving your ability to engage in critical inquiry and research, to design and deliver written, spoken and/or visual texts that demonstrate rhetorical sensitivity, and to be sophisticated readers, listeners, and viewers of the texts of others. We believe that these same competencies can help develop your ability to communicate across differences (e.g., race, gender, sexual orientation, class, ethnicity, political views) as you

find ways to live and learn together in the residence halls and as engaged and ethically reflective citizens both during and after your college years. These goals should be understood as the first step in our work with you over a four-year process of helping you to meet the University's Aims and Objectives.

We hope to help you see that writing, speaking, research, and interacting with others are rhetorical endeavors. Effective communicators are, by definition, rhetorically sensitive. Rhetorical sensitivity means understanding that all communication, whether formal or informal, involves having to make choices about your messages, whether written, spoken, or visual. To become an effective communicator, you need to recognize that the creation of a meaningful and powerful message involves both a creator and an audience, and that therefore the voice you adopt in your communication, and the audience you imagine yourself communicating to, matter a great deal in creating your message. The choices you make in writing and speaking are central in determining how people read and hear your voice. Becoming conscious and reflective about those choices, and their ethical dimensions, is a central goal of the FYP and FYS.

Working with you so that you become more rhetorically sensitive means that you should be increasingly able to assess the requirements of a particular task and make intentional decisions about which mode or modes of communication and inquiry would be most effective in addressing it. To do so, you must develop specific writing, speaking, research, and technological competencies. To accomplish these goals, the FYP and FYS will present you with assignments that ask you to engage in a process that involves **recognizing** the rhetorical situation, **planning** communication strategies to address the task at hand, **composing and presenting** the message, and then engaging in **critical assessment** of your own work and that of others. The results of that assessment process will allow you to rethink, restructure, and revise your work. We further recognize that this process is not linear and that the effective creation of texts requires that you move back and forth among these four elements of the message creation process. This is why we require that your writing and speaking assignments be "projects" that include preparatory exercises and multiple drafts or rehearsals, all of which ask you to continue to reflect critically on the choices you have made in constructing your message.

This process of increased rhetorical awareness and skill development is at the heart of the philosophical and pedagogical perspectives that inform the work of the FYP and FYS. Because this process both transcends and integrates a variety of specific skills, the program has a philosophical commitment to designing assignments that ask you to integrate various modes of communication in furtherance of the higher-level rhetorical goals in which they are situated.

To ensure that the program is meeting its stated goals, all FYP and FYS syllabi are read by other faculty in the program to determine if they include a variety of assignments that forward the writing, speaking, research, and literacy goals of the program. All FYP and FYS courses have to be approved by faculty in the program before they are offered.

### **FIRST-YEAR SEMINAR RESEARCH PROJECT LEARNING GOALS**

With respect to research skills specifically, our learning goals for the spring are that students should:

- Be introduced to ways of conducting productive and imaginative inquiry and research in order to become a part of the various conversations surrounding issues.
- Learn to differentiate among the various ways that information is produced and presented, between popular and scholarly journals and books, between mainstream and alternative publications, between primary and secondary sources.

- Learn how to evaluate and synthesize information, whether gathered from traditional sources, e.g., books and journals, or from websites or electronic media.
- Begin to develop the skills of critical analysis in the interpretation and use of information gathered from any source.
- Be introduced to the ethical obligations that scholars have to both responsibly represent their sources and inform their readers of the sources of their information, as well as learning, and being held responsible for the proper use of, the conventions of scholarly citation and attribution.
- Present the results of your research in written, spoken, visual and/or other forms that demonstrate the ability to communicate effectively using the conventions of the mode of communication adopted.

## **MENTOR**

Ms. Cameron Bruns is our mentor. As a mentor, she is trained to assist you in writing, oral communication, and research. Cameron can help you brainstorm about ideas for an assignment, rehearse a presentation, narrow your thesis for a paper, strengthen your argument and organization in an essay, or work on stylistic and grammatical problems. Her job is to help you learn how to do these things yourself. She is a tutor, not your personal editor! You are free to consult with Cameron during her office hours and at her convenience. You must schedule tutorials with Cameron in advance: she cannot accommodate last-minute requests before an assignment is due. Every week, we will circulate the appointment sign-up sheet for tutorials. If your seminar leader decides that you would need assistance from Cameron, s/he will ask you to schedule a conference with her. It is your responsibility to make the appointment with her and to appear at the time you have reserved. If you miss a scheduled appointment with Cameron, this absence carries the same weight as an absence from class.

## **REQUIRED TEXTS**

Davis JP. (2007). *The Rowan and Littlefield Guide to Writing with Sources*, 3rd ed. New York: Rowan and Littlefield Publishers, Inc.

Lowenfels J, Lewis, W. (2006). *Teaming with Microbes: A Gardener's Guide to the Soil Food Web*. Portland: Timber Press, Inc.

Montgomery DR. (2007). *Dirt: The Erosion of Civilizations*. Berkely: University of California Press.

Stewart A. 2004. *The Earth Moved: On the Remarkable Achievements of Earthworms*. Chapel Hill: Algonquin Books.

Additional readings will be available on ANGEL (<https://angel.stlawu.edu>) as portable document format (.PDF) files

## COURSE EVALUATION

Class preparation and participation	70
Research paper	200
Research topic	P/N
Notes on sources	20
Annotated bibliography	20
Thesis, claims, and evidence	20
Functional outline	30
Full draft	40
Final draft	40
Research portfolio and reflective essay	30
Paper presentation	30
Moderated discussion	20
Soil quiz	20
Soil experience journal and executive summary	40
CSA field trip summary	20
<b>Total</b>	<b>400</b>

## COURSE COMPONENTS

### Class participation and preparation

This is seminar class so there will be very little lecture. Therefore, your active participation is essential for the effectiveness and quality of the course for you and fellow class members. I expect that you are prepared to participate in class discussions by carefully reading and reflecting on the assigned material **before** coming to class. To encourage you to do so, I may sometimes give unannounced, short writing assignments or quizzes. You also must actively participate in class discussions. Good participation is not simply talking a lot during class. Rather, good participation involves attending class, making meaningful contributions to the discussion, maintaining a positive attitude about the material, listening closely and respectfully to your peers, engaging in group work, and participating in peer review. The participation requirement is not intended to penalize those of you who are hesitant to speak in front of peers. It is meant to encourage you to interact with other students and become actively engaged in your own mastery of the material. As a final note, it will always be easier to participate in class discussions if you come to class fully prepared. At the beginning of the semester, I will introduce and frame topics for discussion. However, by the end of the semester I expect that you will run the discussions and I will participate only when called upon by you or to clarify a difficult concept.

### Research project

The research project is the main assignment of the course. It is broken down into smaller steps that are designed to have you work throughout the semester rather than waiting to the last minute to complete your paper. Each of these steps are required but will not always contribute to your final grade. More detail will be provided on each of the steps as the semester proceeds, but below is a quick overview.

#### 1) Research topic

The title of this course is "Just dirt? Soils and human affairs". Therefore, you should select a topic that has both a soils and human component. I suggest you do some preliminary research before choosing a topic. Explore an area of general interest by skimming the readings, talking to

peers, or reading websites. This will help you identify a research topic that is manageable (i.e. you can't write a book) and interesting to you.

Conferences will be held with me to hone your choice of research topic and decide how to proceed.

## 2) Notes on sources

You will need to fill out a worksheet on every source you are considering using for your project, even if the source is not in your final literature cited list. This will be especially useful in the early stages of research. It will organize the sources you find and help you determine what sources will be useful for your project. You will be required to turn in 10 worksheets on February 13, and 20 worksheets must be included in your final research portfolio (see below)

## 3) Annotated bibliography

You must write an annotated bibliography for the four best sources at this stage of your research. None of these sources should be websites at this point. Note that you will need to have an annotated bibliography for all sources cited in your paper for your final research portfolio.

For a description of an example of annotated bibliography go to

[http://apps.carleton.edu/campus/library/find/guides/general/?guide\\_id=132945](http://apps.carleton.edu/campus/library/find/guides/general/?guide_id=132945)

## 4) Thesis, claims, and evidence

You will be required to write a summary of project at this point. The summary should contain your thesis statement and several claims that support your thesis. Most of you will have five to eight claims. You will also need to back up the claims with sources.

## 5) Functional outline

After receiving a feedback on your thesis, claims, and evidence assignment from me, you will construct a detailed outline. The outline will provide the organizational strategy for your research paper. Statements made in the outline should be backed up by sources. You should include an updated list of your references. A good outline will make writing the full draft much easier.

## 6) Full version of research paper

You complete a full version of your research paper that is organized, well-written, and thoroughly proofread. The completed version should include a title, body, and literature cited section.

## 7) Final version of research paper

You will receive detailed comments on your full draft that are intended to improve your paper. These comments may be quite specific. For example, I may suggest that you reword certain sentences to make them clearer. Other comments may be broad and may concern the construction of your claims and supporting evidence or make suggestions for further research. The final version should address all of these comments. In addition to the final version, you should include a brief report detailing how you addressed each of my comments.

## 8) Research portfolio and reflective essay

You will develop a research portfolio that will contain all of the research materials accumulated through the semester. Your portfolio will be electronic and there will be space provided on the T-drive to do this. Therefore, you may need to copy and paste items into Microsoft Word or other software packages. It should be well organized and should include your final annotated

bibliography with all sources cited in your paper, search histories, notes on your sources, all versions of the various steps of the project (e.g., functional outline, full version with my comments). Your research portfolio also should contain a reflection on your work during the semester.

### Paper presentation

Toward the end of the semester, you will need to present your research to your peers. Paper presentations should summarize the major findings of your paper and spur class discussion. Presentation should be done using PowerPoint. Specific guidelines will be provided later in semester.

### Soil Quiz

A basic knowledge of soil science is paramount in understanding soil/human relationships. Therefore, you will take a quiz that will evaluate your knowledge of basic concepts in soil science.

### Moderated discussion

You will lead one class discussion as a pair during the semester. The purpose of the moderated discussion is not to summarize the reading. Rather, you should facilitate discussion of the material by your peers by asking thought-provoking questions about the material and applying the reading to the broader themes of the course. How you accomplish this will ultimately be up to you, but you should be able to demonstrate your mastery of the material and engage your fellow class members. You should discuss your plan of attack with me before you lead your discussion.

### Soil experience

You will conduct a hands-on activity during the semester. This activity is not only intended to have you apply your knowledge of soils but will also provide you with a visceral experience with soils. You will be assigned to working groups consisting of four students each. Activities will be vermicomposting (i.e., composting with earthworms) or gardening in a bucket. You will keep a journal that will contain detailed information on what you did. It should also include your observations and occasional reflections. Your journal should contain an entry for each time you do something related to your experience.

### CSA field trip

We will take one or two field trips to a local community-supported agriculture (CSA) farm. CSA is a partnership of mutual commitment between a farm and a community of supporters which provides a direct link between the production and consumption of food. Supporters cover a farm's yearly operating budget by purchasing a share of the season's harvest. CSA members make a commitment to support the farm throughout the season, and assume the costs, risks and bounty of growing food along with the farmer or grower. You will learn about how the CSA works and may participate in early season planting and growing. You will be required to write a brief one-page essay about your experience.

## **THE WORD STUDIO**

The Munn Center for Rhetoric and Communication maintains The WORD Studio in ODY Library—a place to get feedback from peers on assignments in Writing, Oral communication, Research, and Design of visual projects. You can come for a consultation to plan a paper or presentation (you don't need anything but a blank piece of paper!); to find ways to improve the ideas, organization, and style of a draft; to videotape and review a presentation rehearsal; to practice a PowerPoint presentation, and more. Peer tutors are not proofreaders or editors who

silently “fix” your work for you; instead, they are trained to have a conversation with you about ways you can fix problem areas yourself and become better overall communicators. You may use The WORD Studio for consultations on assignments for any of your courses, although for FYP assignments you should first seek out your course mentor during his or her office hours.

The WORD Studio is open Monday through Thursday, 8:30 a.m. to 11:00 p.m.; Friday, 8:30 a.m. to 4:00 p.m.; and Sunday, 1:00 p.m. to 11:00 p.m. You may also IM the Studio during regular hours with quick questions about grammar, citation, and style: SLUword.

## **COURSE POLICIES**

### Attendance

You are required to attend all classes. Needless to say, it is difficult to participate in class discussions and activities when you miss class. Failure to attend class will reduce your classroom preparation and participation score. Please notify me when you know you must miss class for legitimate reasons.

### Late policies

You are expected to complete all assignments by the specified date. You will receive 10% reduction in your grade for each day late (including weekends). Occasionally, I may change the due date of assignments through email or at the beginning of class. However, “I didn’t know” is not a valid excuse for late assignments because attendance is mandatory.

### Academic honor code

This section pertaining to the academic honor council is ***not confidential***. Your signed acknowledgment of the code will be placed in your permanent student file. The Academic Honor Code cited below was designed by students and approved by the elected student government, the Thelomathesian Society, on February 26, 1992.

All students at St. Lawrence University are bound by honor to maintain the highest level of academic integrity. By virtue of membership in the St. Lawrence community, every student accepts the responsibility to know the rules of academic honesty, to abide by them at all times, and to encourage all others to do the same.

Responsibility for avoiding behavior or situations from which academic dishonesty may be inferred rests entirely with the students. Students should be sure to learn from faculty what is expected as their own work and how the work of other people should be acknowledged.

Academic Dishonesty, according to the *Student Handbook* includes any dishonest conduct in connection with any academic (including research) course, program, or work.

- 1) It is assumed that all work submitted for credit is done by the student unless the instructor gives specific permission for collaboration.
- 2) Cheating on examinations and tests consists of knowingly giving or using, or attempting to use unauthorized assistance during examinations or tests.
- 3) Dishonesty in work outside of examinations and tests consists of handing in for credit as original work that which is **not** original, where originality is required.
- 4) Falsifying research methods, data, and/or results constitutes academic dishonesty.

The following constitute examples of academic dishonesty:

- a) *Plagiarism*: Presenting as one’s own work the work of another person—words, ideas, data,

evidence, thoughts, information, organizing principles, or style of presentation — without proper attribution. Plagiarism includes paraphrasing or summarizing without acknowledgment by quotation marks, footnotes, endnotes, or other indices of reference (cf. Joseph F. Trimmer, *A Guide to MLA Documentation*).

- b) Handing in false data, reports or results in connection with any research project experiment.
- c) Handing in a book report on a book one has not read.
- d) Falsification of attendance records of a laboratory or other class meeting.
- e) Supplying information to another student knowing that such information will be used in a dishonest way.
- f) Submission of work (papers, journal abstracts, etc.) which has received credit in a previous course to satisfy the requirement(s) of a second course without the knowledge and permission of the instructor of the second course.
- g) The above list is not exhaustive. In the event there is a question as to whether alleged conduct falls within the scope of the Academic Honor Code, the vice president and dean of academic affairs' determination shall be final.

Claims of ignorance and academic or personal pressure are unacceptable as excuses for academic dishonesty. Students must learn what constitutes one's own work and how the work of others must be acknowledged." (*St. Lawrence University 2008–2009 Student Handbook*, pp. 148–153.)

All intentional and unintentional acts of academic dishonesty may result in disciplinary action. Recommendations of disciplinary action may include a failing grade on the work in question, a failing grade in the course, disciplinary probation, suspension from the University, or expulsion from the University.

More information on academic integrity, including the Academic Honor Council's Constitution, can be found at: [http://www.stlawu.edu/acadaffairs/academic\\_honor\\_policy.pdf](http://www.stlawu.edu/acadaffairs/academic_honor_policy.pdf). For information about academic integrity or the Academic Honor Council issues, contact the Dean's Office at x5993.

## **COURSE SCHEDULE**

### **WEEK 1 (January 19-23)**

Wednesday (1/21)

Topic: Course introduction

Activity: Develop plan for soil experience

Friday (1/23)

Topic: Introduction to soils

Reading: Lowenfels and Lewis pp. 19-44

### **WEEK 2 (January 26-30)**

Wednesday (1/28)

Topic: Introduction to soils continued; Research project intro.

Reading: Montgomery pp. 9-25

Assignment: Soil experience plan

Activity: Begin soil experience

Friday (1/30)

Topic: Research topic development (5 minutes each)

**WEEK 3 (February 2-6)**

Wednesday (2/4)

Topic: Using search databases

Activity: Library work

Friday (2/6)

Topic: Rise of agriculture

Reading: Montgomery pp. 27-47; Diamond (1987)

Moderators:

Assignment: Research topic and question due

**WEEK 4 (February 9-13)**

Wednesday (2/11)

Topic: Evaluating web sources; Citation format; Soil experience

Assignment: Soil quiz

Activity: Library work; Soil experience

Friday (2/13)

Topic: Soil erosion in human civilizations

Reading: Montgomery pp. 49-55, 74-81, 217-232

Moderators:

Assignment: Notes on sources due

**WEEK 5 (February 16-20)**

Wednesday (2/18)

Topic: Thesis, claims, and evidence and "Speed-dating"

Activity: Thesis development; "Speed-dating"

Friday (2/20)

Topic: Soil use in the United States

Reading: Montgomery pp. 145-200

Moderators:

**WEEK 6 (February 23-27)**

Wednesday (2/25)

Topic: Structuring a research paper

Assignment: Notes on sources with annotated bibliography due

Activity: WORD studio

Friday (2/27)

Topic: Industrial agriculture

Reading: Montgomery pp. 43-63

Moderators:

**WEEK 7 (March 2-6)**

Wednesday (3/4)

Topic: American dustbowl

Assignment: Thesis, claims, and evidence due

Activity: Film - "American Experience: Surviving the Dust Bowl";

College Success Questionnaire

Friday (3/6)

Topic: Beginnings of soil improvement

Reading: Montgomery pp. 92-106; Tennesan (2007)

Moderators:

**WEEK 8 (March 9-13)**

Wednesday (3/11)

Topic: Project conferences

Friday (3/13)

Topic: Alternative farming systems

Reading: Montgomery pp. 200-216; Pimental et al. (2005)

Moderators:

**SPRING BREAK****WEEK 9 (March 23-27)**

Wednesday (3/25)

Topic: Writing with sources; soil testing

Reading: All of Davis

Assignment: Functional outline due

Activity: Testing soils with Hach kit

Friday (3/27)

Topic: Alternative farming systems

Reading: Huggins and Reganold (2008); Glover et al. (2007)

Moderators:

**WEEK 10 (March 30-April 3)**

Wednesday (4/1)

Topic: Community supported agriculture

Activity: Field trip to CSA farm

Friday (4/3)

Topic: The world beneath your feet

Reading: Lowenfels and Lewis 43-63; Wall and Moore (1999)

Moderators:

**WEEK 11 (April 6-10)**

Wednesday (4/8)

Topic: Project presentation intro.; soil filtration

Assignment: First draft due

Activity: Filtering water with soils

Friday (4/10)

Topic: Earthworms!

Reading: Stewart 1-19, 85-109, 121-136

**WEEK 12 (April 13-17)**

Wednesday (4/15)

Topic: Conferences (15 minutes each)

Assignment: CSA essay due

Friday (4/17)

Topic: Composting

Reading: Stewart 20-30, Trautmann and Krasny 1-22

**WEEK 13 (April 20-24)**

Wednesday (4/22)

Topic: Student presentations - part 1

Friday (4/24)

Topic: Student presentations

Assignment: Soil experience journal due

**WEEK 14 (April 27-May 1)**

Wednesday (4/29)

Topic: Community supported agriculture

Activity: Field trip to CSA farm

Friday (5/1)

Topic: Soils and climate change

Reading:

Assignment: Final paper and research portfolio due