



THE SCHOOL  
FOR FIELD STUDIES

# Directed Research

## SFS 4910

**Syllabus**  
**4 credits**

The School for Field Studies (SFS)  
Center for Amazon Studies (CAS)  
Iquitos, Peru

This syllabus may develop or change over time based on local conditions, learning opportunities, and faculty expertise. Course content may vary from semester to semester.

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## **COURSE CONTENT SUBJECT TO CHANGE**

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***Please note that this is a copy of a recent syllabus. A final syllabus will be provided to students on the first day of academic programming.***

SFS programs are different from other travel or study abroad programs. Each iteration of a program is unique and often cannot be implemented exactly as planned for a variety of reasons. There are factors which, although monitored closely, are beyond our control. For example:

- Changes in access to or expiration or change in terms of permits to the highly regulated and sensitive environments in which we work;
- Changes in social/political conditions or tenuous weather situations/natural disasters may require changes to sites or plans, often with little notice;
- Some aspects of programs depend on the current faculty team as well as the goodwill and generosity of individuals, communities, and institutions which lend support.

Please be advised that these or other variables may require changes before or during the program. Part of the SFS experience is adapting to changing conditions and overcoming the obstacles that they may present. In other words, this is a field program, and the field can change.

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## Center Research Direction

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The global research question that we want to address during this research course is:

*What conditions are necessary for effective conservation and sustainable socioeconomic development in Peru?*

## Course Overview

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The aim of this course is to provide students with the opportunity to apply scientific methods to address local social and environmental issues. Students will be prepared to identify hidden assumptions and separate facts from interpretation, cause from correlation, and advocacy from objectivity. Through Directed Research students will contribute to a growing body of scientific research that informs local conservation, development, and resource management decisions.

This course will give you an intensive practical field experience conducting research in tropical areas on a topic of immediate relevance to specific clients working in the context of tropical ecology, conservation biology, and political ecology of the Amazon region. Students will go through all steps of the research process: identification of relevant questions within the ecological and political/cultural context of the region; research design and proposal writing; field data collection; methods of qualitative or quantitative data analysis; and presentation of results to interested parties and the scientific community. To achieve this, students will integrate the information provided in the core courses of the SFS Program and will apply it to the problem at hand under the guidance of a faculty member. In their research projects, students will use concepts and methodologies learned in class, field lectures, and field exercises to deliver technical reports and present to a local audience.

## Learning Objectives

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The core skills students will learn in this course are field techniques, analytical methods, skills, and critical thinking, as well as teamwork, and time management. The specific objectives of the course are:

1. Understand the process of **designing** a field research project
2. **Conduct** field sampling
3. Manage, interpret, and analyze **data** sets
4. **Communicate** research results to diverse audiences
5. Manage teamwork within the context of **collaborative** research

## Assessment

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Assessment Item	Value (%)
Project Proposal	10
Research Skills and Application	20
Data Management	10
Research Paper	30
Oral Presentation	20
Contribution to Public Presentation	5
Reflective Assessment	5
<b>TOTAL</b>	<b>100</b>

### **Project Proposal (10%)**

The project proposal has two elements: a *Literature Review* and a *Project Summary*. The main objective of the Literature Review is for students to familiarize themselves with previous research and publications in their chosen Directed Research project. This should draw upon a literature base (where possible) to initially review the status of research in the field and then to build a setting and justification for research that remains to be done. The main objective of the Project Summary is for students to develop a detailed outline for their Directed Research. The Project Summary should include aims, materials and methods, and predicted findings.

### **Research Skills and Application (20%)**

Your Directed Research Skills will be graded throughout the semester by your supervisor. Your final grade will depend upon your attendance at all DR activities, active involvement and competencies in field data collection, data entry, and group participation/support.

### **Data Management (10%)**

You will be asked to turn in a clean dataset produced from your research that could be used by another researcher to analyze. This clean data should be accompanied with contextual information and formatted in a way that provides enough information to other researchers who may use it. More formatting instructions will be given at the time of data analysis.

### **Research Paper (30%; Draft 10%, Final 20%)**

The most important deliverable of the Directed Research project is a research report written in the form of a scientific manuscript. You will be required to hand in a draft that includes the introduction, methods, and results and a final version that improves on the draft given faculty feedback and the discussion section. The research paper rubric will be handed out separately.

### **Oral Presentation (20%)**

An oral presentation with accompanying visuals will be delivered to an audience composed of all Center SFS staff and students. Presentations will be 12 minutes long and must include a stream of slides (e.g., in Microsoft Office PowerPoint) and a script, both to be handed in at the end of the presentation session. Emphasis will be made on setting the context (introduction) and in the results, implications, and conclusions. Font and colors should be selected in a way that enhances meaning and information, and attention should be paid to the visual design and composition of figures and images. The correspondence of visuals with the idea presented, plus the logical flow of ideas and sections within the presentation will be evaluated.

### **Contribution to Public Presentation (5%)**

SFS strives to produce information that local authorities and the public can use to manage their natural resources. Presenting research results in the local language to the public is therefore critical to SFS's mission. Every group of students working under a professor is expected to put together a public presentation based on their individual research results. The presentation must communicate the significance, goals, and main findings of every group in a way that is accessible and inspiring to a general audience. Not all students have to present but all must participate in the production of the public presentation and their individual contribution to the result will be evaluated.

### **Reflective Assessment (5%)**

At the end of the DR period, each student will write a brief one-page reflection that self-assesses their DR experience. Students should reflect on challenges faced, goals achieved, their time management, and what they might improve or have learned for the future.

## Grading Scheme

Grade corrections in any of the above items should be requested in writing at least 24 hours after assignments are returned. No corrections will be considered afterwards.

A	95.00 - 100.00%	B+	86.00 - 89.99%	C+	76.00 - 79.99%	D	60.00 - 69.99%
A-	90.00 - 94.99%	B	83.00 - 85.99%	C	73.00 - 75.99%	F	0.00 - 59.99%
		B-	80.00 - 82.99%	C-	70.00 - 72.99%		

## General Reminders

**Intellectual Property** – There are many implications about intellectual property and the use of data and research frameworks beyond your semester experience. Many DR projects form part of ongoing and developing research lines at SFS Centers, the work of which is the intellectual property of SFS faculty. However, faculty are always interested in continuing collaborations, and there is often the possibility for student *co-authorship* on future academic publications. We will discuss the ethics of data gathering and academic publications during the semester, but you can also review in advance SFS's [data policy](#).

**Plagiarism** – Using the ideas and material of others without giving due credit, is cheating, and will not be tolerated. A grade of zero will be assigned if anyone is caught cheating or aiding another person to cheat actively or passively (e.g., allowing someone to look at your exam). All assignments unless specifically stated should be individual pieces of work.

**Deadlines** – Deadlines for written and oral assignments are instated for several reasons: they are a part of working life to which students need to become accustomed and promote equity among students. Deadlines allow faculty ample time to review and return assignments before others are due. Late assignments will incur a 10% penalty for each day that they are late. No assignment will be accepted after three days. Assignments will be handed back to students after a one-week grading period.

**Participation** – Since we offer a program that is likely more intensive than you might be used to at your home institution, missing even one lecture can have a proportionally greater effect on your final grade simply because there is little room to make up for lost time. Participation in all components of the program is mandatory because your actions can significantly affect the experience you and your classmates have while at SFS. Therefore, it is important that you are prompt for all DR activities, bring the necessary equipment for field research, and simply get involved.

## Course Content

**L:** Lecture, **D:** Discussion, **W:** Workshop

<b>DR Coursework Component:</b> The coursework component of the DR is designed to prepare the students to conduct scientific research. The lectures are delivered throughout the semester, in conjunction with the topical courses, so that students are well prepared to work with their faculty mentor on meaningful research. Some of the course activities below will be delivered to the whole class, or as part of your specific DR group once you have selected a given project.			
No	Title and outline	Type	Hours
DR 01	<b>Introduction to DR</b> Course objectives, design, pace, evaluation, potential topics	L	0.5
DR 02	<b>Methods of Scientific Inquiry</b> We'll review inductive and deductive inquiry approaches and how they may be used when formulating and answering research questions (from identifying research questions to generating hypotheses) in different fields.	L	1.0

<b>DR 03</b>	<b>Professional &amp; Academic Writing</b> We will discuss the expectations of professional writing in the natural and social sciences and introduce the format we expect reports to be generated at CAS.	L	1.0
<b>DR 04</b>	<b>Research Ethics</b> In this class we will discuss what constitutes plagiarism and data integrity. We will survey opinions on the humane treatment of people and other research subjects, mitigation of negative impacts, and consent.	D	1.0
<b>DR 05</b>	<b>Qualitative Methods Workshop</b> In this class we will introduce the use and practice of qualitative methods in interdisciplinary research, and will explore the parallel issues of voice, representation, and power in the practice of qualitative research.	W	2.0
<b>DR 06</b>	<b>Quantitative Research Methods</b> Basic statistical concepts will be introduced focusing on the basics of descriptive and inferential statistics: statistical distributions, uncertainty, and formal hypothesis testing. Practical examples will be provided.	W	2.0
<b>DR 07</b>	<b>Directed Research Topics &amp; Selection for Spring 2023</b> Research topics of the semester will be presented for students to consider.	L	0.75
<b>DR 08</b>	<b>Time &amp; Project Management</b> How to set priorities, realistic benchmarks, and final goals for doing research projects within a timeframe. How to manage your workflow to meet deadlines.	L	0.75
<b>DR 09</b>	<b>DR team meetings: Proposal Planning</b> Instructions regarding specific proposal requirements will be given and how to use available information resources (databases. etc.). Identification of specific research questions will be workshopped with students.	D	1.75
<b>DR 10</b>	<b>Risk Management in Field Research</b> Groups will meet individually with the SAM and their advisor to discuss and analyze the most common risks in their DR projects. Emphasis will be given to planning for risk mitigation and a group plan will be brainstormed.	D	0.5
<b>DR 11</b>	<b>DR Skills Workshops</b> Project specific skills for data gathering, analysis and data management will be workshopped within each DR group (surveying, interview design, statistics etc.)	W	2.75
<b>DR 12</b>	<b>Presentation Techniques</b> How to make (almost) anyone interested in what you have to say: slide design, delivery, knowing your audience. Answering questions and critique.	W	1.0
<b>Total</b>			<b>15 Hours</b>
<b>DR Research Component</b> This portion of the DR course is made up of research time, which includes data collection, synthesis, and dissemination. Given the intense nature of the Directed Research project, students receive over 140 contact hours during this period.		<b>Days Allocated</b>	
<b>Data Collection</b> Students work within their DR group to go into the field to collect data		10 days	
<b>Data Synthesis</b> Students work closely with their faculty mentors to analyze their collected data and write up their findings in a structured scientific paper		5 days	
<b>Research Dissemination</b> Students prepare, practice, and deliver presentations for SFS and community audiences.		2 days	
<b>Total</b>			<b>17 days</b>