THE SCHOOL FOR FIELD STUDIES

Political and Social Dimensions of Conservation
SFS 3081

Syllabus
4 credits

The School for Field Studies (SFS)
Center for Climate Studies (CCS)
Puerto Natales, Chile

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

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.

Course Overview

This is a transformative moment in Chilean conservation governance. This moment has been gestated through different social, political, and economic events and has transcended all the components of the ecosystem and the efforts for its sustainable management. During 2021 and 2022, a Constitutional Convention was created, voted by the Chilean population. The Constitutional Convention of Chile has developed a project for a new constitution, which includes a serious focus on biological conservation, for example, recognizing nature as a subject of law. On September 4, 2022, the plebiscite was held, which rejected the proposal for an Ecological Constitution. Despite these results, the social movements in Chile continue to develop actions to highlight the value of conservation. Currently, Chile is in a new process of writing a new constitution under a participation framework regulated by a conservative lens, which for example through corporations seeks to increase legal powers to develop activities near the State Protected Wilderness Areas (SNASPE). The political-institutional system seeks public-private alliances that reduce the decision-making power of grassroots social organizations.

In Chilean Patagonia, this situation is reflected to the same extent, with its own nuances and peculiarities. Patagonia has more than 50% of its territory under conservation, with more than 40% of marine waters and fjords under conservation, and between them, there is a high level of connectivity. However, Patagonia suffers from past pressures due to the extractive model inherited from the colony and strengthened during the military dictatorship. It is also threatened by the loss of habitat due to real estate development, tourism, and infrastructure for connectivity, as well as contamination of fresh and marine waters as a result of salmon aquaculture, and the introduction of invasive species.

Examples will be given at the international level and from Patagonia, especially during the field excursions planned for this semester and through Guest Lecturers. Through all, students will gain theory about the main threats to biodiversity, reinforce comparative analysis framed in the principle of thinking globally and acting locally, and methodological approaches for the practice of conservation.

Learning Objectives

The main learning objectives of the course are:

1. Identify and understand the political processes necessary for the conservation of biodiversity and/or cultures in Patagonia, with emphasis on the Chilean system, and examples of the visited field locations.

2. Connect historical land use practices, indigenous territories, natural boundaries, and political events to current conservation approaches in the region.

3. Investigate challenges and opportunities in terrestrial, coastal-marine, and inland water environments including balancing the provision of ecosystem services, integration of traditional and indigenous knowledge, and promoting equitably governed systems of protected areas and other effective area-based conservation measures.

Assessment

The evaluation breakdown for the course is as follows:

Assessment Item	Value (%)
Final Exam	20
Field Exercises (2)	15
Field Notebook	15
Quizzes	15
Integrated Discussion	10
In-class activities	15
Participation	10
TOTAL	**100**

Final Exam (20%)

A final exam will be given based on material covered in lectures, readings, and field experiences, giving students the opportunity to synthesize course content. Students will have access to all their class materials for reference.

Field Exercises (15%)

FEX 1: How is conservation linked to a resilient view towards natural or anthropic hazards? (7%)
Objective: Get to know the view and opinion of local communities towards local wildfires.
Skills to develop: Critical thinking, scientific communication
Methods: The main method will be to develop surveys and apply them in Torres del Paine National Park. Surveying will be created in groups and administered throughout the park. Those surveyed should be varied, from park rangers to local or international tourists. The idea is for students to be critical and aware of the perspectives that different people have towards the same fact (wildfires).

FEX 2: Climate and its relationship with geo-conservation (In collaboration with ESCS class) (8%)
Objective: This assignment will apply both field analysis and theoretical understanding of the relationship between ecosystems and conservation
Skills to develop: Critical thinking, Scientific writing, Discussions ability.
Methods*:* The main method to analyze geo-conservation is through photography, analysis, and comparison. Students are encouraged to take high quality pictures of elements that they believe are relevant for a geo-conservation study (discussed in class previously) and/or related to climate change.

Field Notebook (20%)

Each field expedition provides a context for observation and learning. As we progress through the semester, the class themes will become easier to see in the landscape, and the things we see in a new location deepen the understandings we made in prior spaces. A field notebook is a physical means of capturing the observations and insights that you gain in the field over the course of the semester.

You should become in the habit of making observations of your surroundings and connecting them to the processes that surround them. Especially when we go out of town, every day on a field excursion is an opportunity to develop your field observation skills. During a field outing, these personal observations will form the basis of entries you write up in your field notebook. You can develop your field notebook observations in many forms, including a written description, a drawing with a short description, a conceptual diagram, etc. However, your field observations should not be a simple

recapitulation of the academic field activities (i.e., lectures, FEXs, professor-guided activities). Rather, they should be based on your own observations, insights, and musings. During every field expedition, you will have time to develop your field notebook. Faculty members will be present to clarify any observation you make on that day. Your field notebook must have at least one (1) entry per field day.

Quizzes (15%)

Three short quizzes will be administered covering topics from classroom and field lectures.

In-class activities (10%)

All students should be part of activities held in classes or field trips. Some of these activities may be student-led discussions, presentation of assigned papers, finding information relative to different topics, filling a shared database for the entire course, observing specific elements of the human landscape, etc.

Integrated Discussion (10%)

To review and develop our understandings of the topics explored in the field, we will have **two** integrated discussions across all classes. Since all field locations provide context for observation and learning, this activity will take advantage of your Field Notebook entries and class notes to integrate knowledge. For each integrated discussion, the class will be broken into four (4) groups, with each group overseeing connecting specific themes with specific field locations. Each group will use an online platform to make a presentation and guide a discussion of their peers.

Participation (10%)

Everybody should be prepared for each academic session. This implies reading the materials for each session with enough detail to be able to ask relevant questions and to participate in discussions about the key issues. Active participation during classes, discussions, assignments, and hikes is expected.

Grading Scheme

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

Honor Code/Plagiarism - SFS places high expectations on their students and we hold students accountable for their behaviors. SFS students are held to the honor code below. SFS has a zero-tolerance policy towards student cheating, plagiarism, data falsification, and any other form of dishonest academic and/or research practice or behavior. Using the ideas or material of others without giving due credit is cheating and will not be tolerated. Any SFS student found to have engaged in or facilitated academic and/or research dishonesty will receive no credit (0%) for that activity.

> *"SFS does not tolerate cheating or plagiarism in any form. While participating in an SFS program, students are expected to refrain from cheating, plagiarism and any other behavior which would result in a student receiving credit for work which they did not accomplish on their own. Students are expected to report any instance of cheating or plagiarism by others."*

Deadlines - Deadlines for written and oral assignments are instated to promote equity among students and to allow faculty ample time to review and return assignments before others are due. As such, deadlines are firm; extensions will only be considered under extreme circumstances. Late assignments will incur a penalty of 10% of your grade for each day you are late. After two days past the deadline, assignments will no longer be accepted. Assignments will be handed back to students after a one-week grading period. Grade corrections for any assessment item should be requested in writing at least 24 hours after assignments are returned. No corrections will be considered afterwards.

Content Statement - Every student comes to SFS with unique life experiences, which contribute to the way various information is processed. Some of the content in this course may be intellectually or emotionally challenging but has been intentionally selected to achieve certain learning goals and/or showcase the complexity of many modern issues. If you anticipate a challenge engaging with a certain topic or find that you are struggling with certain discussions, we encourage you to talk about it with faculty, friends, family, the HWM, or access available mental health resources.

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 course is mandatory, it is important that you are prompt for all activities, bring the necessary equipment for field exercises and class activities, and simply get involved.

Course Content

Type: FEX: Field exercise, **FL:** Field Lecture, **GL:** Guest Lecture, **L:** Lecture, **O:** Orientation, **CA:** Class Activity

Code	Title and outline	Type	Hours	Readings
PSDC 01	**Course Introduction:** Making the classroom a place that enhances all students' learning.	O	1.0	
One-day Expedition to Cerro Benitez				
PSDC 02	**Introduction to the Patagonian conservation model:** terrestrial state protected areas in Chilean Patagonia by its characterization, evolution, and management.	FL	1.5	UN Climate Change, 2022
PSDC 03	**Sustainable Development and Ecosystem Services** Analysis of the sustainable development model and its goals; compare local and global initiatives in terms of fulfilling this concept. Comparison of different ecosystem services denominated and known worldwide.	L; CA	4.0	Arriagada et al. 2018 Sapiains et al. 2021
Multiday Expedition to Torres del Paine				
PSDC 04	**Ecosystem services in Torres del Paine area, Patagonia:** Analyze how this concept applies in the local area, through a group activity.	FL	1.0	
PSDC 05	**Patagonian conservation model (public):** Being in Torres del Paine National Park we will define the different areas of conservation, from the buffer zones to the public protected areas.	FL	2.0	

Code	Title and outline	Type	Hours	Readings
PSDC 06	**Legal status of conservation:** in Chile we will analyze how different entities have the faculties to conserve, and worldwide (with examples) how other options and perspectives are seen.	L; GL; CA	4.0	
One-day Expedition to Reserva Explora				
PSDC 07	**Patagonian conservation model (private):** Being in Reserva EXPLORA (private initiative with conservation purposes) we will compare the differences with the public model.	FL	2.0	Cronon, 1995; Cronon, 1996
PSDC 08	**Local and sustainable entrepreneurs:** Efforts to reduce the current threats to conservation (Ecovasos Dorotea or Compost Coiron)	GL	1.5	Tacon et al. 2021
PSDC 09	**Skills Workshop**	CA	4.0	
One-day Expedition to Isla Magdelena				
PSDC 10	**Private initiatives for cultural and biological conservation:** how to develop a conservation management plan based on Open Standards for Conservation Practice. (PART1)	FEX	1.0	
One-day Expedition to Pali Aike				
PSDC 11	**Geoconservation:** Introduction to the concept, linked to CONS03 where we may see how concepts at a global scale merge. Activity where students must think and elaborate a new management strategy for the park.	FL; FEX	2.0	
PSDC 12	**Conservation at different biodiversity scale:** how conservation is being developed at the different scales, applied to Patagonia and worldwide examples.	GL	4.0	Pastur et al. 2016; Costanza et al. 2017; Brain et al. 2020
PSDC 13	**Integrated discussion:** A student-led exploration combining themes and locations visited during the first half of the course.	CA	4.0	
Multi-day Expedition to El Calafate, Pingo Salvaje, and Punta Arenas				
PSDC 14	**Biocultural Conservation in Patagonia:** role of habitat and inhabitants for conserving biodiversity and culture.	FL	2.5	**Audio guide** Audio Guía – Punta Walichu
PSDC 15	**Socioecological perception of glaciers:** perception as a cultural aspect to conserve.	FL	1.5	Rozzi 2013
PSDC 16	**Structure and functions of URBAN wetlands:** climatic, hydrological, soil components and processes that provide ecosystem services and nature contribution to social well-being (PART1).	FL	1.0	Stewart et al. 2016
PSDC 17	**Sustainable management and conservation of wetlands**	FL	1.0	
PSDC 18	**Valuating nature**: How are ecosystems valued for the multiple services they provide human communities? How are cultural services values	FL	1.0	**Petit et al. 2018; OECD/ECLAC 2016**

Code	Title and outline	Type	Hours	Readings
	compared to provisioning or regulating services? (PART1: Regenerative farming)			
PSDC 19	**Structure and functions of URBAN wetlands:** climatic, hydrological, soil components and processes that provide ecosystem services and nature contribution to social well-being (PART2).	FL	2.0	
PSDC 20	**Local Conservation Projects:** efforts to reduce the current threats to conservation. Conservatory with Ranger at Parque del Estrecho**.**	FL; GL	1.0	
PSDC 21	**Integrated discussion:** A student-led exploration combining themes and locations visited during multi-day excursion	CA	4.0	
PSDC 22	**Socioecological dimensions in conservation:** how conservation in perceived and managed in Chile, Patagonia, and the world. Social dimensions of how science and conservation is lead. Activity in groups for the elaboration of a model that adapts to this concept. **Valuating nature:** how are ecosystems valued for the multiple services they provide human communities? How are cultural services values compared to provisioning or regulating services. (PART2: Salmon industry)	L; CA	4.0	
PSDC 23	**Human conservation and big challenges of today**	GL	2.0	
One-day Expedition to Rio Rubens				
PSDC 24	**Structure and functions of wetlands:** climatic, hydrological, soil components and processes that provide ecosystem services and nature contribution to social well-being.	FL	1.0	
PSDC 25	**Climate change Governance**: how climate change has different outputs, depending on social media and academia. Impacts of climate change on social and economic conservation dimensions in Chile and Patagonia specifically.	L	4.0	Montory et al. 2010; Inostroza, Zasada, and König 2016; Silva 2016
PSDC 26	**Integrated discussion:** A student-led exploration of themes covered during course	FEX	1.0	
		Total	58	

Reading List

- Agrawal, A., & M. C. Lemos, 2007. A Greener Revolution in the Making?: Environmental Governance in the 21st Century. Environment: Science and Policy for Sustainable Development 49: 36– 45.
- Anacona, P. I., J. Kinney, M. Schaefer, S. Harrison, R. Wilson, A. Segovia, B. Mazzorana, F. Guerra,

D. Farías, J. M. Reynolds, & N. F. Glasser, 2018. Glacier protection laws: Potential conflicts in managing glacial hazards and adapting to climate change. Ambio 47: 835–845.

- Arriagada, R., P. Aldunce, G. Blanco, C. Ibarra, P. Moraga, L. Nahuelhual, R. O'Ryan, A. Urquiza, & L. Gallardo, 2018. Climate change governance in the anthropocene: emergence of polycentrism in Chile. Elementa: Science of the Anthropocene 6: 68.
- Bergin, J., & R. Paarlberg, 2023. Urbanization as Both a Threat and a Management Strategy for Wetland Conservation: Initial Research and Future Implications for Estero Natales. .
- Biggs, R., H. Clements, A. D. Vos, C. Folke, A. Manyani, K. Maciejewski, B. Martín-López, R. Preiser, O. Selomane, & M. Schlüter, 2021. What are social-ecological systems and social-ecological systems research? The Routledge Handbook of Research Methods for Social-Ecological Systems. Routledge, London: 3–26.
- Climate Change is a Gender Issue. 2019. https://www.youtube.com/watch?v=zCYZ_2xFLfc.
- Climate (In) Justice. 2021. https://www.youtube.com/watch?v=pHRu0VV-Dbw&t=2s.
- Conservation Measures Partnership, 2020. Conservation Standards 4.0 Revisions Committee. Convention on Biological Diversity, 2023. The Biodiversity Plan for Life on Earth.
- Cronon, W. J., 1995. The Trouble with Wilderness; or, Getting Back to the Wrong Nature. 24.
- Espoz, C., R. Matus, D. Haro, & H. V. Norambuena, 2022. Effective Conservation and Good Governance at the Ramsar Site Bahía Lomas, Tierra del Fuego, Chile.
- Hamann, M., J. A. Johnson, T. Chaigneau, R. Chaplin-Kramer, L. Mandle, & J. T. Rieb, 2021. Ecosystem service modelling The Routledge Handbook of Research Methods for Social-Ecological Systems. Routledge, London: 426–439.
- Koch, H., & A. Yung, 2023. Redesigning Estero Natales water quality sampling points: cocreation with local key informants.
- Lastra-Bravo, J., 2021. The resurgence of the Selk'nam. Dynamics of ethnoheterogenesis, ethnicity, and legal recognition in the Tierra del Fuego. Runas. Journal of Education and Culture 2: e21038.
- Lemos, M. C., & A. Agrawal, 2006. Environmental Governance. Annual Review of Environment and Resources 31: 297–325.
- Maillet, A., & S. Carrasco, 2021. Between environmental subsystem change and extractive regime resilience Andean States and the Resource Curse. Routledge, London: 158–176.
- Muñoz-Lobos, C., A. Vásquez, & E. Cortés-Donoso, 2020. El rol de los gobiernos locales en la gobernanza de protección de humedales. El caso del Humedal de Pichicuy, Chile. Revista Urbano 23: 98–111.
- Petit, I. J., A. N. Campoy, M.-J. Hevia, C. F. Gaymer, & F. A. Squeo, 2018. Protected areas in Chile: are we managing them?. Revista Chilena de Historia Natural 91: 1.
- Ramsar, 2006. Guidelines for the Rapid Ecological Assessment Of Biodiversity In Inland Water, Coastal And Marine Areas. Ramsar, Gland, Switzerland: 55.
- Rozzi, R., 2013. Biocultural Ethics: From Biocultural Homogenization Toward Biocultural Conservation in Rozzi, R., S. T. A. Pickett, C. Palmer, J. J. J. Armesto, & J. B. Callicott (eds), Linking

Ecology and Ethics for a Changing World. Springer Netherlands, Dordrecht: 9–32.

- Sapiains, R., C. Ibarra, G. Jiménez, R. O'Ryan, G. Blanco, P. Moraga, & M. Rojas, 2021. Exploring the contours of climate governance: An interdisciplinary systematic literature review from a southern perspective. Environmental Policy and Governance 31: 46–59.
- Stewart, E. J., J. Wilson, S. Espiner, H. Purdie, C. Lemieux, & J. Dawson, 2016. Implications of climate change for glacier tourism. Tourism Geographies 18: 377–398, http://www.tandfonline.com/doi/full/10.1080/14616688.2016.1198416.
- United Nations, U., 2022. What is the triple planetary crisis?
- Violence Is Heating Up: Climate Change's Effect on Gender-Based Violence. Tort Report 2022 - Harvard Law School - Systemic Justice Project, 2022.
- Why it's hard to care about climate change, 2022. https://www.youtube.com/watch?v=QK7g6pgaC7I.