



THE SCHOOL
FOR FIELD STUDIES

Environmental Sustainability and Socioeconomic Values SFS 3021

Syllabus
4 credits

The School for Field Studies (SFS)
Center for Rainforest Studies
Yungaburra, Queensland, Australia

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.

www.fieldstudies.org

© 2023 The School for Field Studies



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

The Environmental Sustainability and Socio-economic Values course explores the contemporary environmental and sustainability issues and touches broadly on the historical, social-cultural, economic and political factors that determine the use of natural resources, with particular emphasis on, but not limited to, the Wet Tropics of Australia. Topics to be covered in this course include environmentalism, sustainable food production and livelihoods, the impact of human activities on terrestrial and marine biomes, conservation conflicts, resource governance and so on. In addition, students will be introduced to social science research methods, while a visit to a local Aboriginal community will help them gain a better understanding of the first Australian's enviro-cultural heritage values.

All lectures and activities in this course are aimed at addressing the following questions:

- What is the impact of human settlement in the Wet Tropics bioregion and the Great Barrier Reef?
- What are the current and emerging threats facing these regions, and what is the justification for various interventions?
- How can the landscapes & seascapes be managed for long-term sustainability?

Throughout the course students will be introduced to and are expected to gain hands-on experience on social research techniques.

Overall, the Environmental Policy and Socio-economic Values course will integrate with the other courses (Tropical Biome Ecology and Climate Change & Wildlife and Conservation Biology), and show how policy questions, which emerge from the integration, can be addressed by the incorporation of economic and social considerations.

Center Research Direction

The Centre for Rainforest Studies' research plan addresses the question: *How can the future of the Wet Tropics in a changing world be ensured?* Staff and students of SFS-CRS investigate this topic by engaging in research under three core components:

1. Understanding ecological and social systems
2. Conflict, vulnerability and change
3. Effective response to change

Through our research, we aim to assist a range of stakeholders and research partners. These include local landholders; non-government conservation organizations conducting rainforest restoration or having a special interest in flora and fauna; several levels of government, particularly local and state government; regional research organizations, including universities and the Commonwealth Scientific and Industrial Research Organization.

We aim to improve stability, sustainability, environmental awareness, and concern for natural resources in the Wet Tropics, in particular on the Atherton Tablelands. Our goal is to strengthen research, technical and practical collaboration between SFS-CRS and other research organizations, governmental agencies and non-governmental organizations to carry out this agenda.

Learning Objectives

Environmental Sustainability and Socioeconomic Values aims to:

- provide a broader social context for conservation issues, using specific examples from the Australian Wet Tropics and Great Barrier Reef to illustrate more general points
- discuss the impacts of various economic activities on the landscape
- discuss possible ways of ensuring sustainable futures in the face of global environmental change
- explore emerging environmental governance issues and legislative frameworks
- introduce concepts and terms used in socio-economic analysis of environmental issues as well as methods of data collection, analysis and use of information
- provide a foundation for specialised environment-related courses at higher levels of study

On completion of this course, students should be able to:

- Explain the array of socio-cultural, economic and political factors that shape resource use
- Explain the economic, socio-cultural, and political incentives and impediments to conservation
- demonstrate an understanding of the interactions between human and ecological systems in the Wet Tropics
- discuss the dilemmas in choosing between economic development and the environment
- express and discuss factors which influence natural resource management planning and decision making
- demonstrate the information literacy skills of collecting, analysing and reporting data

Assessment

Assessment Item	Value (%)
Environmental Impact Assessment	25
Field Exercise (FEX) Report	20
Three Minute Talk	20
Stakeholder Scenario	20
Final Quiz	10
Participation	5
TOTAL	100

Environmental Impact Assessment (25%)

The purpose of an Environmental Impact Assessment (EIA) for any project is to obtain environmental clearance. Road networks, water supply and management, energy production, supply and management, communication services, and many such infrastructural projects are all part of development projects. Conducting EIAs is routine for environmental consultants, and the resulting report can be instrumental for informing government or authorities of the impacts of development. This exercise is designed to give students an experience in conducting and writing up an environmental impact assessment.

Field Exercise (FEX) Report (20%)

The field exercise will give students hands-on experience with two basic research techniques: creating and administering survey questionnaires, and the application of qualitative research techniques. Students will be required to collect and analyze survey data and report findings. Although students will collect data in groups, the reports must be individually written. The Assessment will focus on the ability of the student to analyze, clearly present, and intelligently interpret data in a report format.

Three Minute Talk (20%)

This activity is designed for students to explore various contemporary topics in sustainability that goes beyond what is covered in the lectures.

Stakeholder Scenario (20%)

In any kind of development or conservation project, it is important to be able to understand the perspective of stakeholders. This exercise is designed for students (in groups) to role research and present the position of several different stakeholders in a development scenario. The major outcome of this activity is for each stakeholder group to come up with a concrete viewpoint on the development proposal. A grading rubric will be provided when the assignment is introduced.

Final Quiz (10%)

Quiz based on materials covered in the course. In addition to lecture material, the quiz will also test students' understanding and ability to apply the techniques and protocols used in social science research. The quiz will also cover topics related to sustainability and aboriginal issues.

Participation (5%)

During the course, students will be graded by faculty based on their overall participation in fieldwork and during lectures or discussion. Students may also have their peers involved in giving feedback on how each of them participated during group work.

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

Readings - You are expected to have read all the assigned articles prior to each class. Readings might be updated or changed during the semester.

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 – Assessments items 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, and

extensions will only be considered under extenuating circumstances. If you believe that you have been prevented from completing your work on time for reasons beyond your control (e.g., illness), make sure that you discuss this with the course coordinators **as soon as possible**, and certainly before the assignments are due. Assignments submitted after the due date and without extension will be penalised at **10% per day late**.

Faculty availability – Faculty will ordinarily keep regular office hours. Extended meetings should be pre-arranged, and any meeting outside office hours must be arranged at least 24 hours in advance.

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 often 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- L: Lecture, **D:** Discussion, **W:** Workshop, **FEX:** Field Exercise, **GL:** Guest Lecture; **FL:** Field Lecture

No	Topics covered	Hours	Type	Required Readings
1	Course overview Introductory lecture for the course where we outline learning outcomes and expectations.	1.5	L	
2	Contemporary issues in environmentalism & environmental sustainability An introductory lecture to highlight the main tenets of environmentalism and sustainability.	1.0	L	Sonneborn, L. (2007). Tomislav, K. (2018). Kadykalo, A. N., et al. (2019).
3	Why do some societies collapse, others survive? Explore reasons why some civilizations and societies collapse while others persist and the lessons we can learn from their stories.	2.0	L	Diamond, J. (2005).
4	Big businesses & the environment Understand how big businesses impact the environment and how these businesses can make (or be compelled to make) more sustainable choices. Also understand the power of consumer choice.	1.0	L	Diamond, J. (2005).
5	History of land ownership: Going back 60,000 years Intro to Australian aboriginal culture.	2.0	L	Rumsey, A. (1993). Bradshaw, C.J.A. (2011). Hepburn, S. (2015). Larson, S. (2010). Pitts, M. (2004)

6	Visit to the Djabaguy Aboriginal community: Indigenous management of Natural Resources Immersion in Australian aboriginal culture during our visit to an aboriginal community.	3.0	GL; FL; D	
7	The impact of human activities on the GBR Understand how human activities are impacting the Great Barrier Reef through this visit to the reef. During this trip, you will also conduct an Environmental Impact assessment at the site.	7.0	FL	Toby, K (2002) Day, J. C. (2017). Giakoumi, S., et al. (2018).
8	The impact of economic activities on the landscape: Innovations in Agricultural production Learn how human activities affect the landscape and some innovations in agricultural production.	3.0	FL	Altieri, M. A. (2018).
9	Agroecology & Regenerative agriculture A brief history of industrial agriculture and its effects. We will explore alternative ways of growing food that are more aligned with nature.	2.0	L; FL; GL	Altieri, M. A. (2018).
10	Sustainable livelihoods Discuss principles of sustainable livelihoods and explore examples of marine livelihoods that allow people to earn income and satisfaction, without negatively impacting the natural resources through which they obtain their livelihood.	2.0	L	Serrat, O. (2017).
11	Introduction to Conservation Social Science A lecture that will help with an understanding of the importance of integrating human dimensions to improve conservation.	1.0	FL	Curtis, S., et al. (2011). Bennett, N. J., et al. (2017).
12	Survey design, methods, and data collection Social research is quite different from biological science research. We will discuss some techniques for collecting sociological/socioeconomic data.	2.0	W; L	Mack, et al. (2005). Trainor, A.A. and Graue, E. (2013). Trotter II R. T. (2012).
13	Stakeholder Analysis and Identification (FEX) This field exercise will introduce you to Stakeholder analysis and identification.	2.0	L	
14	Community engagement and social safeguards including ethics Learn about the importance of community engagement in environmental sociology.	1.0	L	Jharna, M., et al. (2011). Bottrill, et al. (2008).
15	Field exercise data collection This period is dedicated to field exercises where you will learn about conducting interviews on various sustainability or socioeconomic topics.	6.0	FEX	
16	FEX analysis and report writing This period is dedicated to field exercise data analysis and writing. Here you will be introduced to the skills for analyzing and writing up social data.	6.0	FEX	

17	Making sense of social data workshop Workshop to explore and discuss the results of your FEX analysis.	2.0	W; L	
18	Ecologically sustainable development We explore the fundamentals of sustainable development in this lecture.	1.0	L	Rogers, P. P., et al. (2012).
19	The impact of mining and grazing on surrounding landscapes: The outback experience A field lecture in the Queensland outback where we will explore the impacts of mining	1.0	FL	
20	Local Resource Governance Brief introduction to governance and environmental law including legislation, precautionary principle, overcoming private property rights, etc.	1.0	L	Argent, N. (2011). Bartel, R., et al. (2014). Gerry, B. (2016). Wood, M. C. (2010).
21	Accounting for ecosystems services How ecosystem service benefits measured?	1.0	D	Boyd, J. and Wainger, L. (2003). Buyinza, M., et al. (2007).
22	Triage and prioritization How do we prioritize conservation activities and management actions?	1.0	L	Vadi, V. (2013).
23	Final Quiz Review	1.0	L	
Total		50		

Reading List

1. Altieri, M. A. (2018). *Agroecology: the science of sustainable agriculture*. CRC Press.
2. Argent, N. (2011). Trouble in paradise? Governing Australia's multifunctional rural landscapes. *Australian Geographer*, 42 (2), 183-205.
3. Bartel, R., McFarlan, P. and Hearfield, C. (2014). Taking a de-binarised envirosocial approach to reconciling the environment vs economy debate: lessons from climate change litigation for planning in NSW, Australia. *TPR*, 85 (1) 2014.
4. Bennett, N. J., Roth, R., Klain, S. C., Chan, K., Christie, P., Clark, D. A., ... & Wyborn, C. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. *biological conservation*, 205, 93-108.
5. Bottrill, et al. (2008). Is conservation triage just smart decision making? *Trends in Ecology and Evolution* 23: 649-654.
6. Boyd, J. and Wainger, L. (2003). *Measuring Ecosystem Service Benefits: The Use of Landscape Analysis to Evaluate Environmental Trades and Compensation*. Discussion Paper 02-63, Resources for the Future.
7. Bradshaw, C.J.A. (2011). Little left to lose: deforestation and forest degradation in Australia since European colonization. *Journal of Plant Ecology*. 5(1), 109-120.
8. Buyinza, M., Bukenya, M. and Nabalegwa, M. (2007). Economic valuation of Bujagali Falls Recreational Park, Uganda. *Journal of Park and Recreation Administration* 25, 12-28.
9. Curtis, S., Gesler, W., Smitha, G. and Washburn, S. (2011). Approaches to sampling and case selection in qualitative research: examples in the geography of health. *Social Science and Medicine*, 50:1001-1014.
10. Day, J. C. (2017). Effective Public Participation is Fundamental for Marine Conservation—Lessons from a Large-Scale MPA. *Coastal Management*, 45(6), 470-486.

11. Diamond, J. (2005). *Collapse. How societies choose to fail or survive*. Penguin Group.
12. Gerry, B. (2016). *Environmental Law in Australia (9th edn)*, LexisNexis, Butterworths-Australia.
13. Giakoumi, S., McGowan, J., Mills, M., Beger, M., Bustamante, R. H., Charles, A., . . . Possingham, H. P. (2018). Revisiting “Success” and “Failure” of Marine Protected Areas: A Conservation Scientist Perspective. *Frontiers in Marine Science*, 5.
14. Hepburn, S. (2015). Statutory interpretation and native title extinguishment: Expanding constructional choices. *UNSW Law Journal*, 38(2).
15. Jharna, M., Srinivas, A. and Subhash, P. (2011). *Ethics in human research*. Tropical parasitology report. Medknow Publications and Media Pvt. Ltd.
16. Kadykalo, A. N., López-Rodríguez, M. D., Ainscough, J., Droste, N., Ryu, H., Ávila-Flores, G., ... & Harmáčková, Z. V. (2019). Disentangling ‘ecosystem services’ and ‘nature’s contributions to people’. *Ecosystems and People*, 15(1), 269-287.
17. Larson, S. (2010). *The socio-economic features of northern Australia*.
18. Mack, et al. (2005). *Qualitative Research Methods: A data collector’s field guide*. Family Health International Report.
19. Pitts, M. (2004). A brief look at the storied past of Far North Queensland. Extracts from recognizing race and race relations in Far North Queensland: What public documents, public monuments and people say and don’t say: In *New Directions in North Australian History*. Darwin: Charles Darwin University Press.
20. Rogers, P. P., Jalal, K. F., & Boyd, J. A. (2012). *An introduction to sustainable development*. Routledge.
21. Rumsey, A. (1993). *Aboriginal Australia. Language and culture in Aboriginal Australia*, 191-206.
22. Serrat, O. (2017). The sustainable livelihoods approach. In *Knowledge solutions* (pp. 21-26). Springer, Singapore.
23. Sonneborn, L. (2007). *The environmental movement: protecting our natural resources*. Infobase Publishing.
24. Toby, K. (2002). *Rainforests of the Sea: Home to more than 25 percent of the world’s marine life, Coral reefs are among the most fragile and endangered ecosystems on the planet*. EBSCO Publishing.
25. Tomislav, K. (2018). The concept of sustainable development: From its beginning to the contemporary issues. *Zagreb International Review of Economics & Business*, 21(1), 67-94.
26. Trainor, A.A and Graue, E. (2013). *Methods in Social & Behavioural Science: A guide for Research and Reviewers*. Taylor & Francis, Florence, KY USA.
27. Trotter II, R. T. (2012). Qualitative research sample design and sample size: Resolving and unresolved issues and inferential imperatives. *Preventive medicine*, 55: 398-400.
28. Vadi, V. (2013). Culture Clash? World heritage and investors’ rights in international investment law and arbitration. *ICSID Review*, 28, (1), 123–143.
29. Wood, M. C. (2010). “You Can’t Negotiate with a Beetle”: Environmental Law for a New Ecological Age. *Natural resources journal*, 50, 167-184.