Environmental Research Methods and Ethics
ENVI-3500 (3 credits)

Italy: Island Ecosystems in the Mediterranean

This syllabus is representative of a typical semester. Because courses develop and change over time to take advantage of unique learning opportunities, actual course content varies from semester to semester.

Course Description
This seminar prepares students to conduct effective research in Mediterranean island environments, with a focus on the complex interactions between marine and terrestrial ecosystems, human communities, and conservation challenges. The course provides hands-on experience with environmental field study techniques and guides students in developing well-designed independent research projects. Course content emphasizes understanding of Mediterranean island ecosystems, endemic species, and human-environment dynamics as fundamental to fieldwork. Students learn to conduct both ecological and social science research, including interviewing techniques and participatory approaches with local communities. The course covers data collection, interpretation, and presentation of primary data related to island environments. The course also covers research ethics, including IRB processes and cultural considerations necessary for conducting research in Mediterranean communities. The overall aim is to help students hone their experiential learning processes and acquired research skills and prepare them for the development of their Independent Study Project (ISP).

Learning Outcomes
Upon completion of the course, students will be able to:
- Implement appropriate research methodologies for social science investigations
- Apply environmental research methods in marine, coastal, and terrestrial ecosystems
- Conduct ethical and culturally sensitive research with island communities
- Navigate IRB processes successfully
- Develop a feasible and ethically sound independent research project proposal

Language of Instruction
This course is taught in English, and where Italian is used, translation to English will be provided.

Instructional Methods
SIT's teaching and learning philosophy is grounded in the experiential learning theory developed by Kolb (1984; 2015) and informed by various scholars, such as Dewey, Piaget, Lewin, among others. Experiential learning theory recognizes that learning is an active process

that is not confined to the formal curriculum; "knowledge is created through the transformation of experience" (Kolb, 2015, p. 49). Learning involves both content and process. Learning is holistic and happens through various life experiences upon which students draw to generate new ways of knowing and being. Learning involves a community and is a lifelong endeavor. Learning is transformational. The suggested four step-cycle of a *concrete experience*, *reflective observation*, *abstract conceptualization*, and *active experimentation* embedded in the experiential learning model is not linear and might not always happen in that specific order, as any learning is highly context dependent. These stages of taking part in a shared experience; reflecting on that experience by describing and interpreting it; challenging their own assumptions and beliefs to generate new knowledge; and ultimately applying new knowledge, awareness, skills, and attitudes in a variety of situations and contexts are important for students to engage in to become empowered lifelong learners.

Required Texts
See the course schedule for a full list of reading assignments.

Attendance and Participation
Due to the nature of SIT Study Abroad programs, and the importance of student and instructor contributions in each and every class session, attendance at all classes and for all program excursions is required. Criteria for evaluation of student performance include attendance and participation in program activities. Students must fully participate in all program components and courses. Students may not voluntarily opt out of required program activities. Valid reasons for absence – such as illness – must be discussed with the academic director or other designated staff person. Absences impact academic performance, may impact grades, and could result in dismissal from the program.

Late Assignments
SIT Study Abroad programs integrate traditional classroom lectures and discussion with field-based experiences, site visits and debriefs. The curriculum is designed to build on itself and progress to the culmination (projects, ISP, case studies, internship, etc.). It is critical that students complete assignments in a timely manner to continue to benefit from the sequences in assignments, reflections and experiences throughout the program.
Example: Students may request a justified extension for one paper/assignment during the semester. Requests must be made in writing and at least 12 hours before the posted due date and time. If reason for request is accepted, an extension of up to one week may be granted at that time. Any further requests for extensions will not be granted. Students who fail to submit the assignment within the extension period will receive an 'F' for the assignment.

Assignments and Evaluation

Assignment Descriptions and Grading Criteria

1. **Class Participation (10%)**
   Active participation is essential for learning in this course. Students are expected to engage meaningfully in field activities, contribute to group discussions, and demonstrate respectful conduct when working with local communities. The participation

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grade reflects both the quantity and quality of student engagement throughout the course.

2. **Interdisciplinary Field Research Project (35%)**

   This assignment is designed for students to apply social science and environmental research methods and to move students to think deeply about research ethics in a livelihood context that is not their own. In small groups, students will choose a local environmental practice (e.g. traditional olive growing, artisanal fishing, sheep herding, grape cultivation, ecotourism, water management, or another practice). Before initiating their work, students will consult with program staff about their project topics to ensure students consider and prepare for the appropriate ethical considerations of their research. Students will also consult staff regarding their selection of environmental research methods to ensure that they will collect the data they require for their project. Once approved, each group will go to the field and interview three people that are involved in the activity that they have chosen to study. Students will also apply environmental research methods to gather data on the ecosystem with which the activity is associated. After conducting the field research, through a twenty-minute oral presentation, students will present to the class their research preparation process, the ethical considerations and guardrails they agreed upon prior to conducting their research, their data collection process, the results of the research, and a reflection on the experience.

3. **Research Ethics Case Study (20%)**

   Analyze the ethical considerations in a provided case study about research in Mediterranean island communities. Write a 2-page response discussing potential ethical challenges and how you would address them. Consider issues like informed consent, cultural sensitivity, and reciprocity with local communities.

4. **Research Proposal (35%)**

   Develop a proposal for your independent research project. Your 5-page proposal should include:
   - Research question and objectives
   - Literature review
   - Methods you plan to use
   - Ethical considerations
   - Timeline and feasibility assessment
   - How your research connects to broader island sustainability issues

Each assignment includes brief written guidelines and a clear grading rubric. Assignments are designed to build your research skills progressively while complementing your other coursework in island ecology and community sustainability.

Grading Scale
94-100%   A

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90-93%   A-
87-89%   B+
84-86%   B
80-83%   B-
77-79%   C+
74-76%   C
70-73%   C-
67-69%   D+
64-66%   D
below 64   F

Program Expectations

- **Show up prepared.** For an interactive course to succeed, you must be present, on time, and have your readings completed and points in mind for discussion or clarification. Being prepared with these elements raises the level of class discussion for everyone. Moreover, the content of this course is learned collaboratively, meaning that when a student isn't here, they take away from everyone's opportunity to learn. The only way to maximize our collective learning potential is if we are all here contributing. Valid reasons for absence – such as illness – must be discussed with the academic director or other designated staff person. Absences impact academic performance, may impact grades, and could result in dismissal from the program
- **Submit assignments on time:** SIT Study Abroad programs integrate traditional classroom lectures and discussion with field- based experiences, site visits and debriefs. The curriculum is designed to build on itself and progress to the culmination (projects, ISP, case studies, internship, etc.). It is critical that students complete assignments in a timely manner to continue to benefit from the sequences in assignments, reflections and experiences throughout the program.
- **Bring your curiosity:** Ask questions in class**.** Engage the guest lecturers, as these are often very busy professionals who are doing us an honor by coming to speak. Remember, there are no foolish questions, and your inquiries might help others in class who have similar ideas/thoughts. By actively participating and showing curiosity, you demonstrate respect for our guests and contribute to creating a dynamic learning environment for everyone.
- **Maintain academic Integrity:** As members of a learning community, we all want to submit work that reflects our own ideas and efforts. Even if it is unintentional, plagiarism can have serious consequences. Before you submit each assignment, ask yourself these questions:

  - Did I reference ideas, quotes, phrases, or facts I read about in a book, article, or website, without citing the author and year of the source where I read about them?
  - Did I paraphrase by changing only a word or two or moving the words around?

- Did you answer "yes" to any of the above questions? If so, you are committing plagiarism and need to give credit to appropriate sources before you submit your assignment

- **Principled Disagreement**: Learning often involves discomfort. Some discomfort can facilitate personal and collective growth. You, your peers, guest lecturers, instructors, and local constituents, have diverse experiences, values, beliefs, affiliations, and identities. Reflecting on these differences can be emotionally challenging, even when it deepens self-awareness and mutual understanding. In this course, we aim to encourage brave spaces were principled disagreement is encouraged rather than avoiding difficult conversations. *This is challenging work, and we will inevitably make mistakes.* Our goal is to thoughtfully critique ideas rather than attacking individuals. We aim to embrace productive discomfort and minimize unproductive discomfort, striving for principled disagreement.
- **Content Considerations**: Some texts and activities you will encounter in this course delve into sensitive topics that may be emotionally and intellectually challenging. Our classroom is a brave space where we can engage with challenging ideas, question assumptions, and navigate difficult topics with respect and maturity. As possible, I will flag content and activities that are especially graphic or intense, so we are prepared to address them soberly and sensitively. If you are struggling to keep up with the work or participate in the course because of the nature of the content and activities, you should speak with me and/or seek help from counselling services.
- **Our social identities** – Our social identities - race/ethnicity, class, gender, sexual identity, religion, mental and physical ability, size, national origin, citizenship status, and more – shape how we are perceived, represented, and treated. They also influence what knowledge and learning is deemed valuable and legitimate. To challenge hegemonic paradigms and perspectives, this course intentionally includes readings, topics, videos, and assignments from authors and perspectives of diverse backgrounds. However, there may be gaps we have overlooked. Your constructive feedback is always welcome on how to make this course more inclusive and transformative.

- **Storing Your Work**: Keep several copies of your work as back up and keep one copy accessible to you through an online forum, such as an attachment in your email, the course learning management system, or cloud-based storage. This way your work will always be available to despite technical issues. Lost files, deleted drives, or computer crashes are not excuses for late, missing work.
- **Personal Technology Use:** Cell phones and other personal electronics can be used for taking notes and other class activities. Off-task usage is not acceptable. You may be marked as absent for habitually using them for something other than classroom activities.
- **Course Communication**: Although the course calendar provides a broad overview and the general sequence of work and assignments for the course, what we accomplish in class will vary, and revisions to the calendar will be posted at the course site. You will need to check the course site regularly. You are responsible for letting me know about any network-related problems that prevent you from accessing or submitting assignments.

- **Classroom recording policy:** To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

SIT Policies and Resources

Please refer to the [SIT Study Abroad Handbook](#) and the [Policies](#) section of the SIT website for all academic and student affairs policies. Students are accountable for complying with all published policies. Of particular relevance to this course are the policies regarding: academic integrity, Family Educational Rights and Privacy Act (FERPA), research and ethics in field study and internships, late assignments, academic status, academic appeals, diversity and disability, sexual harassment and misconduct, and the student code of conduct.

Please refer to the SIT Study Abroad Handbook and SIT website for information on important resources and services provided through our central administration in Vermont, such as [Library resources and research support](#), [Accessibility Services](#), [Counseling Services,](#) [Title IX information](#), and [Equity, Diversity, and Inclusion](#) resources.

Course Schedule

*Please be aware that topics and excursions may vary to take advantage of any emerging events, to accommodate changes in our lecturers' availability, and to respect any changes that would affect student safety. Students will be notified if this occurs.

Module 1: Foundations of Research and Ethics in Mediterranean Island Ecosystems

This module introduces students to essential field research skills in Mediterranean island contexts. Through hands-on practice in various settings, students learn basic observation techniques, field notetaking, and research ethics fundamentals. Emphasis is placed on developing skills for both ecological and social science research methods.

Sessions may include:

- Ethical approaches to community-based research
- Field notetaking and documentation techniques
- Intercultural communication
- Introduction to Mediterranean island research contexts
- Introduction to environmental field research methods and equipment

Required Readings:

Baldacchino, G. (2008). Studying islands: On whose terms? Some epistemological and methodological challenges to the pursuit of island studies. *Island Studies Journal*, 3(1), 37–56.

Broesch, T., Crittenden, A. N., Beheim, B. A., Blackwell, A. D., Bunce, J. A., Colleran, H., ... & Mulder, M. B. (2020). Navigating cross-cultural research: methodological and ethical considerations. *Proceedings of the Royal Society B*, *287*(1935), 20201245.

Creswell J. & Creswell J.D. (2023) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 6th edition*. Sage. 7-17 p.

Foley, A., Brinklow, L., Corbett, J., Kelman, I., Klöck, C., Moncada, S., Mycoo, M., Nunn, P., Pugh, J., Robinson, S. A., Tandrayen-Ragoobur, V., & Walshe, R. (2023). Understanding "islandness." *Annals of the American Association of Geographers*, 113(8), 1800–1817.

Hayward, A., Sjoblom, E., Sinclair, S., & Cidro, J. (2021). A new era of Indigenous research: Community-based Indigenous research ethics protocols in Canada. *Journal of Empirical Research on Human Research Ethics*, *16*(4), 403-417.

Lenette, C. (2022). *Participatory Action research: Ethics and Decolonization*. Oxford University Press. 79-94 p.

USC. Writing Field Notes. https://libguides.usc.edu/writingguide/assignments/fieldnotes

Module 2: Ecological Research Methods
This module covers key techniques for studying island ecosystems. Students learn to collect environmental data and integrate scientific methods with local knowledge. Environmental field research methods in forests, coastal, and marine habitats will be covered including research methods for specific taxa.

Sessions may include:
- Plankton and fish abundance and diversity survey techniques
- Study site selection and sampling design
- Soil sampling methodology
- Avian research methods
- Forestry and carbon research

Required Reading:

Burkhart, H.E., Avery, T.E., Bullock, B.P. (2019). *Forest Measurements 6th edition.* Waveland Press.

Mandurran A. (2021) Measuring biological diversity. *Current Biology*. 31(19). 1174-177.

McMahon, E. and Baldacchino, G. (2023), Special section: Considering suitable research methods for islands. *Geographical Research*, 61: 93-95.

Milroy, S. (2015). *Field Methods in Marine Science: From Measurements to Models*. Garland.

Posadas, P., Crisci, J. V., & Katinas, L. (2011). Spatial methodologies in historical biogeography of islands. In Bramwell, D., Caujapé-Castells, J. (eds). *The Biology of Island Floras.* 37-56 p.

Thunhikorn, S., Grainger, M. J., McGowan, P. J., & Savini, T. (2016). Methods used to survey avian species and their potential for surveying ground-dwelling birds in Asia. *Forktail*, *32*, 5-13.

Module 3: Working with Communities

Students learn methods for engaging with local communities and documenting traditional ecological knowledge. The module covers interviewing techniques, cross-cultural communication, and participatory research approaches, with emphasis on ethical engagement with Mediterranean island communities.

Sessions may include:

- Interview methods and practice
- Cross-cultural communication skills
- Documenting local ecological knowledge
- Participatory research methods
- Ethics of community engagement
- Informed consent procedures

Required Readings:

Braun, V. & Clarke, V. (2022). *Thematic Analysis: A Practical Guide.* Sage. 214-220 p.

Canella, G. S., & Lincoln, Y. S. (2011). *Ethics, Research, and Methodologies: New Perspectives.* Routledge (Chapter 2 and 3)

Griffin, T.M. (2008). Effective intercultural communication. In Halverson, C. & Tirmizi, S. (eds). *Effective Multicultural Teams: Theory and Practice.* Springer. 173-198 p.

Nalau, J., S. Becken, J. Schliephack, M. Parsons, C. Brown, and B. Mackey. 2018. The role of Indigenous and traditional knowledge in ecosystem-based adaptation: A review of the literature and case studies from the Pacific Islands. *Weather, Climate, and Society* 10 (4):851–65.

Roulston, K. (2013) *Reflective Interviewing: A Guide to Theory and Practice 3rd edition.* Sage. 96-107 p.

Seidman, I. (2019) *Interviewing as Qualitative Research 5th edition.* Teachers College Press. 85-100 p.

Smith, L. T. (2012). *Decolonizing Methodologies: Research and Indigenous Peoples.* Zed Books. (Chapter 1 & 2)

Module 4: Research Design and Proposal Development

The final module guides students through the process of designing their own research and developing a strong research proposal. Focus is placed on developing feasible research questions, creating achievable research objectives, and planning research that abides by appropriate cultural and ethical research norms.

Possible Sessions:

- Developing research questions
- Writing a research proposal
- Writing a literature review
- Creating project timelines and budgets
- Presenting research plans

Required Readings:

Angelsen, A.A., Smith-Hall, C., Larsen, H.O. (2011) Composing a research proposal. In *Measuring Livelihoods and Environmental Dependence.* Angelsen, A.A., Smith-Hall, C., Larsen, H.O, Lund, J.F., Wunder, S (eds). Earthscan. 33-48 p.

Barnard, C. J., Gilbert, F., & McGregor, P. (2017). Asking questions in biology: a guide to hypothesis testing, experimental design and presentation in practical work and research projects. Harlow, England: Pearson. [Selected chapters.]

Creswell J. & Creswell J.D. (2023) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 6th edition.* Sage. 25-39; 79-84 p.

Seidman, I. (2019) *Interviewing as Qualitative Research 5th edition.* Teachers College Press. 33-43 p.