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| <b>DO NOT TYPE IN THIS BOX</b> |
| Bulletin # : _____             |
| Academic Year : _____          |

**FLORIDA INTERNATIONAL UNIVERSITY  
UNIVERSITY CURRICULUM COMMITTEE**  
*Proposal for a New Course*

1. **School/College** International & Public Affairs

**Div./Dept. in Which Taught** Global and Sociocultural Studies - GSS

2. SYD      6      C      3      **CIP Code (Leave this blank):** \_\_\_\_\_  
 Alpha      1st      Last 3      "C"-lec-lab      Cr. Hrs.  
 Prefix      Digit      Digits      "L"-Lab

3. **Grading Method (select one):**  Graded  Pass/Fail

4a. **Course Title** Interdisciplinary methods in social-ecological research

b. **Abbreviated course Title (for computer class schedules, transcripts)** Interdisciplinary methods  
LIMITED TO 25 Characters (including spaces)

5. **Statewide Course Numbering Subject Matter Area** \_\_\_\_\_

6. **Catalog Description/Major Topics (not to exceed 200 characters including spaces)**

*College of Medicine and College of Law: Attach description not exceeding 1,000 characters including spaces.*

Explores theories, methods, tools, and applications of inter- and trans-disciplinary research across academic fields, as well as between academia and society.

7. **Attach detailed syllabus course outline and course justification on separate page(s).**

8. **Prerequisite(s):** Basic knowledge of research design

9. **Corequisite(s):** \_\_\_\_\_

10. **Objective(s) of Course:**

To explore theories, methods, tools and applications of inter- and trans-disciplinary research across biophysical sciences, social sciences and humanities, as well as between academia and society.

11. **Does this course duplicate/overlap other courses at FIU?**  No  Yes

If yes, please explain: \_\_\_\_\_

12. **What other closely related department(s) have been consulted about this course?**

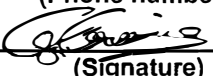
Department of Earth and Environment

13. **Is this course used for the assessment of a program or a certificate (if yes, then send a notification to assessment@fiu.edu)?**  No  Yes

**PROPOSAL REQUESTED BY:**

Faculty Contact Simone Athayde  03 / 03 / 2021  
 (Type name) (Signature)

sathayde@fiu.edu 352-6424605  
 (Email address) (Phone number)

Chairperson (Dept./Div.) Gui lermo Grenier  03 / 03 / 2021  
 (Type name) (Signature)

Chairperson (Curr. Comm.) \_\_\_\_\_ / \_\_\_\_\_ / 20  
 (Type name) (Signature)

College/School Dean \_\_\_\_\_ / \_\_\_\_\_ / 20  
 (Type name) (Signature)

Submit one original form. Attach one copy of the course justification and course syllabus, course description, objectives, major topics and textbooks.

## **New Course Justification: Interdisciplinary methods in social-ecological research**

This foundational course is designed to fill a critical gap for training students enrolled at FIU interdisciplinary programs interested in developing skills, methods and tools for inter- and trans-disciplinary research that integrates knowledge across biophysical sciences, social sciences, and humanities, as well as between academia and society. The course uses problem-based learning and critical thinking, to explore current complex socio-environmental issues including, but not restricted to, climate change, water issues, deforestation and land degradation, human-wildlife conflicts, conservation and restoration, and sustainability in national and international contexts. The course builds on the previous experience and interests of students in the development of specific content, examples, and case-studies. The course also reflects the instructor's expertise in environmental anthropology and interdisciplinary research focusing on the social-ecological systems theory and approaches, including research design elements and methods in the following categories: a) methods for system scoping (e.g. resilience assessment, participatory mapping, stakeholder analysis combined with rapid social-ecological inventory, case-study analysis); b) social-ecological field data (e.g. land-use change, water pollution drivers and processes, modelling of uses/policies on water conditions, fish stocks, forest-people interactions, etc.); c) methods for collection of social data (e.g. interviews, surveys, choice experiments, game theory, multi-criteria decision-making, cognitive maps, social network analyses, etc.); d) participatory methods, including Indigenous methodologies; e) facilitated dialogues (methods and tools for co-production of knowledge); e) futures analysis (e.g. scenarios analysis). The choice of the specific methods to be approached will depend on the students' interests and needs, especially considering their masters or doctoral individual projects.

The course is highly collaborative, including group projects and activities as well as the use of coding and social network analysis softwares (Nvivo and UCINET). Students will have the opportunity to develop and/or enhance their own individual projects, as well as to design collaborative mini-projects integrating social and biophysical sciences, as well as the humanities, that will depend on their own expertise and interests. The course is especially suited for graduate students early in their programs, as it will prepare them to understand and design inter- and trans-disciplinary research projects during and after their academic programs. It will also provide students with international and global competencies based on international content and case-studies approached.

The course contributes to strengthening FIU graduate training in five main interrelated areas: 1) history, politics and theories of inter- and trans-disciplinary science; 2) inter- and trans-disciplinary research design and ethics, methods and tools, including case-study analysis and participatory methods; 3) specific methods and singularities of research conducted by, about, with and/or for Indigenous peoples; 4) bridging the Science-Policy interface; and 5) academic structures, career paths and applications of inter- and trans-disciplinary research.

The course will be developed through a hybrid classroom approach, with a mix of on-line materials, asynchronous activities, and face-to-face interaction in the FIU campus.

Thank you for your time in reviewing this course proposal, and please, let me know if you have any questions.

Sincerely,



Dr. Simone Athayde  
Associate Professor  
Department of Global and Sociocultural Studies  
[sathayde@fiu.edu](mailto:sathayde@fiu.edu)

## Course description, objectives, major topics and textbooks

### Course description:

This foundational course is designed to explore theories, methods, tools, and applications of inter- and trans-disciplinary research across academic disciplinary fields in the biophysical, social sciences and humanities, as well as integrating academic and societal knowledge. The course contributes to strengthening FIU undergraduate and graduate training in five main interrelated areas: 1) history, politics and theories of inter- and trans-disciplinary science; 2) inter- and trans-disciplinary research design and ethics, methods and tools, including case-study analysis and participatory methods; 3) specific methods and singularities of research conducted by, about, with and/or for Indigenous peoples; 4) bridging the Science-Policy interface; and 5) academic structures, career paths and applications of inter- and trans-disciplinary research.

The course will be developed through a hybrid classroom approach, with a mix of on-line materials, asynchronous activities, and periods of face-to-face interaction in the FIU campus. Integrative themes will be illustrated from case-studies from around the world, as well as from the students' experiences and research focuses and/or interests. Individual and group assignments will focus on developing creative and critical thinking by the students, allowing for a diversity of formats, including integrative mini-research projects, policy-oriented essays, wiki pages, visual stories and infographics, case-study reports, and workshop development, among others.

**Learning Objectives:** At the end of this course, students will be able to:

1. Understand the historical and theoretical foundations of inter and transdisciplinary research and practice between humanities, biophysical and social sciences;
2. Develop theoretical and methodological approaches for carrying out individual and collaborative inter- and transdisciplinary projects integrating biophysical and social science disciplinary fields, methods and tools in both academic and non-academic settings.
3. Develop problem-focused and critical thinking skills to address current social-ecological problems in different scales, geographical and socio-economic contexts.
4. Understand the principles and the legal dimensions of research ethics;
5. Understand specificities of research conducted by, with and for Indigenous peoples and other cultural groups, including self-determination and de-colonizing approaches and experiences;
6. Identify career paths and real-world applications for inter- and transdisciplinary professionals;
7. Develop global competencies for collaborative research within academia and between academia and society.

### Textbooks:

- 1) Creswell, J. and J. D. Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5<sup>th</sup> ed. Los Angeles: Sage 2018. ISBN: 978-1-5063-8670-6. Important: the 4<sup>th</sup> edition of this book is also accepted (2014).
- 2) The Routledge Handbook of Research Methods for Social-ecological Systems. Edited by R. Biggs, A. De Vos, R. Preiser, H. Clements, K. Maciejewski, and M. Schlueter. Publication projected on July 2021. Will need purchase of a couple copies by FIU Library.
- 3) Chilisa, B. 2019. *Indigenous Research Methodologies*. 2 ed. Sage: Thousand Oaks.

## Syllabus SYD 6901 (graduate)

### Interdisciplinary methods in social-ecological research - Spring, 2021

Department of Global and Sociocultural Studies, hybrid (on campus and online)

In partnership with the Kimberly Green Latin American and Caribbean Studies Center (LACC)

Professor: Dr. Simone Athayde ([sathayde@fiu.edu](mailto:sathayde@fiu.edu))

Days/Times: Tuesdays 9:30-11:20 am (ZEB 150), and asynchronous activities

Office hours: Tuesdays, 1:00-2:00 PM

Office: LACC #364; Tel: 305.348.0391

#### Course Overview and Purpose:

This foundational course is designed to explore theories, methods, tools, and applications of inter- and trans-disciplinary research across academic disciplinary fields in the biophysical, social sciences and humanities, as well as integrating academic and societal knowledge. The course contributes to strengthening FIU undergraduate and graduate training in five main interrelated areas: 1) history, politics and theories of inter- and trans-disciplinary science; 2) inter- and trans-disciplinary research design and ethics, methods and tools, including case-study analysis and participatory methods; 3) specific methods and singularities of research conducted by, about, with and/or for Indigenous peoples; 4) bridging the Science-Policy interface; and 5) academic structures, career paths and applications of inter- and trans-disciplinary research.

The course is designed to fill a critical gap for training students enrolled at FIU interdisciplinary programs interested in developing skills, methods and tools for inter- and trans-disciplinary research that integrates knowledge within academia and between academia and society. The course is especially suited for students early in their career, as it will prepare them to understand and conduct inter- and trans-disciplinary research and collaborations during and after their academic programs. It will also provide students with international and global competencies based on the international content and case-studies approached in the course.

The course will be developed through a **hybrid classroom approach, with a mix of on-line materials, asynchronous activities, and two periods of optional face-to-face interaction in the FIU campus. Students who do not feel comfortable with the face-to-face format, are not required to attend classes on campus.** They are still required to participate in these classes online via Zoom, which will be made available to everyone. The course will approach three main integrative themes to explore interdisciplinary theories and methods for social-ecological research: water, fisheries and forests, including climate change effects on these. Integrative themes will be illustrated from case-studies from around the world, as well as from the students' experiences and research focuses and/or interests. Individual and group assignments will focus on developing creative and critical thinking by the students, allowing for a diversity of formats, including integrative mini-research projects, policy-oriented essays, wiki pages, visual stories and infographics, case-study reports, and workshop development, among others.

**Required Text:** This course adopts the following textbook: Creswell, J. and J. D. Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5<sup>th</sup> ed. Los Angeles: Sage 2018. ISBN: 978-1-5063-8670-6. **Important:** the 4<sup>th</sup> edition of this book is also accepted (2014). There are options for purchasing, renting, or getting a Kindle version of the book that I will discuss with students

during the first day of classes. All other reading materials will be made available via link to the FIU library, or directly provided to the students by the instructor.

**Prerequisites:** None.

**Office Hours:** Dr. Simone Athayde's regular office hours will be Tuesdays from 1:00-2:00 PM, on Zoom (link will be provided on Canvas). You are encouraged to email Professor Simone to confirm an appointment time.

**Course-related PDFs:** The readings will be available on the course's Canvas site.

**Learning Objectives:** At the end of this course, students will be able to:

1. Understand the historical and theoretical foundations of inter and transdisciplinary research and practice between humanities, biophysical and social sciences;
2. Develop theoretical and methodological approaches for carrying out individual and collaborative inter- and transdisciplinary projects integrating biophysical and social science disciplinary fields, methods and tools in both academic and non-academic settings.
3. Develop problem-focused and critical thinking skills to address current social-ecological problems in different scales, geographical and socio-economic contexts.
4. Understand the principles and the legal dimensions of research ethics;
5. Understand specificities of research conducted by, with and for Indigenous peoples and other cultural groups, including self-determination and de-colonizing approaches and experiences;
6. Identify career paths and real-world applications for inter- and transdisciplinary professionals;
7. Develop global competencies for collaborative research within academia and between academia and society.

**Assignments:** Students' final grade will be calculated based on four assignments. The dates for handing in these assignments will be announced via Canvas and in class. Students are encouraged to check the Canvas platform on a daily basis. These include the following:

**1. Individual research statement (30% of total grade):**

- Students will develop individual research statements based on current or future FIU – related interdisciplinary research. These will be mini-research proposals in formats adapted from the National Science Foundation (NSF) and other relevant public and private funding agencies.

**2. Online collaborative forum on research methods and tools (20% of total grade):**

- Groups of students will lead weekly online discussions and learning workshops facilitated by the Professor, including potential synchronous small groups discussions and mini-workshops on specific research methods and tools approached in class.
- These will be defined according to the course's program, as well as by students' interests and previous experiences.
- Products of these student-led online discussions might include research notes, videos, guides and compilation of online materials and apps that can facilitate inter- and trans-disciplinary research design, communication, implementation, and evaluation. Students are expected to fully engage and contribute to the weekly discussions and mini-workshops.

**3. Online activities, exercises and quizzes (20% of total grade):**

- For each weekly module of the class, students are required to complete online learning exercises and activities, based on the main weekly focus (ex: Science and Policy interface; or Research Ethics; Careers; etc).
- These activities may include readings or videos questions, or critical thinking questions based on classes' content and addressing real-world social-ecological issues.

**4. Collaborative interdisciplinary group projects (30% of total grade):**

- Students will work in small groups of around 3-5 people, to be randomly defined by the Professor on Canvas.
- The groups will work on collaborative inter- or trans-disciplinary projects addressing a variety of social-ecological problems in the US and/or internationally and are encouraged to include one or more methods and/or tools taught in the course.
- The groups projects formats may include workshop design, integrative research projects, wikipages, videos, case-study analyses, photo-stories and others. Group projects will be evaluated by the professor and rated by the students. Students in the top three rated projects will receive extra credit for this assignment.

**Summary of assignments and grading for the class:**

|   |     |
|---|-----|
| 1. Individual research statement                            | 30% |
| 2. Online collaborative forum on research methods and tools | 20% |
| 3. Online activities, exercises and quizzes                 | 20% |
| 4. Collaborative interdisciplinary group projects           | 30% |

**Extra credit** - Extra credit options may be announced during the semester.

**Other considerations:** Please consider the following issues as they can influence the course's progress and students' grades.

**Canvas platform** – All students must be registered and familiar with the Canvas platform. Reading materials and group discussions will be carried out via Canvas. Some class meetings may be held using the Canvas platform via its video capabilities. Professor Simone Athayde will announce those sessions in class or via email in the platform.

**Style of written assignments** – the formats and templates for the written assignments will be posted on Canvas along with each assignment's details and deadlines.

**Timeliness** – All assignments are expected to be turned in as specified in Canvas. Late assignments received after midnight on the due date specified on Canvas will be receive a 20% discount on the earned grade, and thereafter receive another 20% reduction for the next week it is late. Written assignments will not be accepted after two weeks of the deadline.

**Attendance** - In order to succeed in this course, students are expected to attend every synchronous and asynchronous classes. Course materials, exercises and discussions presented in class are the responsibility of the student. A missed class is not an explanation for poor performance on assignments. While there is no formal grade for attendance, class attendance in this course and participation during discussions is important. If you have a valid situation (health-related or otherwise) that seriously affects your attendance, you must speak to the professor right away at the beginning of the course. Attendance will be tracked and can influence final grades if there is a significant and consistent attendance problem that is not justified by the student.

**Notes on academic integrity** - The faculty of the School of International and Public Affairs (SIPA) believes that the conduct of a student registered or taking courses in the School should be consistent with that of a professional person. Courtesy, honesty, and respect should be shown by students toward faculty members, guest lecturers, administrative support staff, and fellow students. Similarly, students should expect faculty to treat them fairly, showing respect for their ideas and opinions and striving to help them achieve maximum benefits from their experience in the School.

Student academic misconduct refers to behavior that may include plagiarism, cheating, fabrication, falsification of records or official documents, intentional misuse of equipment or materials (including library materials), and aiding and abetting the perpetration of such acts. *The preparation of reviews and essays, assigned on an individual basis, must represent each student's own effort and must not reproduce verbatim previously published material, including from the Internet.* Quoted material must be described as such and appropriately set apart with quotation marks, and all sources must be identified with in-text citation and in a "References cited" section. Reference sources should be indicated clearly when quoting prior texts (internet or otherwise).

**Laptops, tablets, phones** - Students may use these devices to take notes as part of the course. Please do not use these devices in class to email, IM, text message, update your social media, or browse the web in ways not related to class activity. These activities will limit your ability to engage in the class discussion and can distract other students. The professor has the right to

**Students with disabilities** - Student with disabilities who require academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 471-6259 (voice) or 471-4641 as soon as possible to request an official letter outlining the needed and authorized accommodations.

## CLASS SCHEDULE (subject to small changes and adjustments)

Each week, students are required to participate in the **Collaborative Research Forum**, and to complete **Online activities, exercises and quizzes** related to class content, which will be announced on Canvas always on the week prior to the week they are due.

| WEEK | DATES          | TOPIC  | READINGS   |
|------|----------------|--|--|
| 1    | January 11-15  | Introduction to the course: Inter- and trans-disciplinarity from theory to practice  | n/a  |
| 2    | January 18-22  | Historical, theoretical and critical foundations: disciplinary “languages”   | Latour, 1988<br>Weingart, 2010   |
| 3    | January 25-29  | Knowledge and power: understanding multi, inter and transdisciplinary research<br>Includes Research Ethics                                     | Klein, 2010<br>Tress et al., 2006                                      |
| 4    | February 01-05 | Inter- and transdisciplinary research design: quantitative, qualitative, and mixed methods   | Creswell, 2014<br>Lele and Norgaard, 2005                              |
| 5    | February 08-12 |  |  |
| 6    | February 15-19 | Methods and tools for participatory research<br>Ethics discussion<br>Guest speaker: Dr. Jynessa Dutka-Gianelli                                 | Athayde et al., 2017<br>Cordner et al. 2012<br>Crandall et al. 2018    |
| 7    | February 22-26 | Mid-term class evaluation survey<br>Group Forum: mini-projects presentations<br>Methods Group Forum activity                                   | N/A  |
| 8    | March 01-05    | Complex social-ecological systems theory, methods and applications<br><br>Validity and reliability in social sciences research                 | Armitage et al., 2009<br>Binder et al., 2013<br>Drost, 2010            |
| 9    | March 08-12    | Indigenous peoples and research: ethics and methodologies<br><b>Individual research statement assignment due on March 9, 2020 by 11:59 pm.</b> | Whyte, 2013<br>Smith, 2014<br>Chilisa, 2019                            |
| 10   | March 15-19    | Case-study analysis in research and teaching   | Baxter and Jack, 2008<br>Teegavarapu and Summers 2008                  |
| 11   | March 22-26    | Bridging the Science-Policy interface: the role of research and communication  | Funtowicz and Ravetz, 2020<br>Becker and Bryman, 2005<br>Cortner, 2000 |



## Class Schedule: continuation.

| WEEK | DATES               | TOPIC   | REQUIRED READINGS  |
|------|---------------------|---|--|
| 12   | March 29 – April 02 | Stakeholder theory, multi-stakeholder processes and stakeholder analysis in environmental governance<br><b>Group Forum activity</b>   | Reed et al., 2009<br>Brugha and Varvasovsky, 2000                            |
| 13   | April 05-09         | Mapping relationships: social network analysis methods and applications<br><br>Publishing inter- and trans-disciplinary research: Overview of journals, venues, formats and obstacles.  | Hanneman and Riddle, 2005<br>Morel et al., 2009                              |
| 14   | April 12-16         | Job Market: Academic structures, opportunities and career paths for inter- and transdisciplinary professionals<br><br><b>Group projects deadline: April 12, 2020, by 11:59 pm.</b><br>Group projects presentations, Part 1<br><b>Group Forum activity</b> | Noorden, 2015<br>Pohl et al. 2015<br>Klein et al. 2011<br>Kainer et al. 2006 |
| 15   | April 19-23         | Group projects presentations, Part 2.<br>Conclusion and evaluation  | n/a  |

### Textbooks:

- 1) Creswell, J. and J. D. Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5<sup>th</sup> ed. Los Angeles: Sage 2018. ISBN: 978-1-5063-8670-6. Important: the 4<sup>th</sup> edition of this book is also accepted (2014).
- 2) The Routledge Handbook of Research Methods for Social-ecological Systems. Edited by R. Biggs, A. De Vos, R. Preiser, H. Clements, K. Maciejewski, and M. Schlueter. Publication projected on July 2021. Will need purchase of a couple copies by FIU Library.
- 3) Chilisa, B. 2019. *Indigenous Research Methodologies*. 2 ed. Sage: Thousand Oaks.

### Readings:

Armitage, D. R., R. Plummer, F. Berkes, R. I. Arthur, A. T. Charles, I. J. Davidson-Hunt, A. P. Diduck, N. C. Doubleday, D. S. Johnson, M. Marschke, P. McConney, E. W. Pinkerton and E. K. Wollenberg. 2009. Adaptive Co-Management for Social-Ecological Complexity. *Frontiers in Ecology and the Environment* 7 (2): 95-102.

Athayde, S. F., W. L. Bartels, R. Buschbacher, and R. D. R. Seluchinesk. 2013. Collaborative learning, transdisciplinarity and social-environmental management in the Amazon: approaches to knowledge production between academia and society. *RBPG* 10(21): 723-748. Available at:

<http://ojs.rbpg.capes.gov.br/index.php/rbpg/article/viewFile/583/423>

- Athayde, S.; J. Silva-Lugo; M. Schmink; A. Kaiabi; and M. Heckenberger. 2017. Reconnecting art and science for sustainability: learning from indigenous knowledge through participatory action-research in the Amazon. *Ecology and Society* 22(2):36. <https://doi.org/10.5751/ES-09323-220236>
- Baxter, P. and S. Jack. 2008. Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report* Volume 13 Number 4 December 2008 544-559. <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf>
- Becker S. and A. Bryman (ed.) 2005. *Understanding research for social policy and practice: themes, methods and approaches*, The Policy Press, Bristol, United Kingdom.
- Bernard, H. R. 2013. *Social research methods: qualitative and quantitative approaches*. Los Angeles, SAGE. (no need to purchase the book)
- Binder, C. R., J. Hinkel, P. W. G. Bots, and C. Pahl-Wostl. 2013. Comparison of frameworks for analyzing social-ecological systems. *Ecology and Society* 18(4): 26. <http://dx.doi.org/10.5751/ES-05551-180426>
- Brugha, R. and Z. Varvasovsky. 2000. Stakeholder analysis: a review. *Health Policy and Planning* 15 (3): 239-246.
- Cash, D. W., W. C. Clark, F. Alcock, N. M. Dickson, N. Eckley, D. Guston, J. Jäger, and R. B. Mitchell. 2003. Knowledge Systems for Sustainable Development. *PNAS* 100 (14): 8086-8091.
- Chambers, R. 1994. The Origins and Practice of Participatory Rural Appraisal. *World Development* v. 22, n.7, p. 953-969.
- Chilisa, B. 2019. *Indigenous Research Methodologies*. 2 ed. Sage: Thousand Oaks.
- Cortner, H. J. 2000. Making science relevant to environmental policy. *Environmental Science and Policy* 3: 21-30.
- Creswell, J. W. 2014. *Research design: qualitative, quantitative and mixed approaches*. 4<sup>th</sup> ed. Thousand Oaks, Sage. (no need to purchase the book)
- Drost, E. 2010. Validity and reliability in social science research. *Education Research and Perspectives* 38 (1): 105:123. Available at:  [\(18\) \(PDF\) Validity and Reliability in Social Science Research \(researchgate.net\)](http://www.researchgate.net/publication/266411111-Validity-and-Reliability-in-Social-Science-Research)
- Freire, P. 2006. *Pedagogy of the Oppressed, 30th Anniversary ed.* New York: Continuum. (no need to purchase the book)
- Funtowicz, S. and J. Ravetz. 2020. Post-Normal Science: How Does It Resonate With the World of Today? In: Šucha, V. and M. Sienkiewicz (eds.) 2020. *Science for Policy Handbook*. Elsevier: European Union, pp 14-18. DOI: <https://doi.org/10.1016/C2018-0-03963-8>
- Hanneman, Robert A. and Mark Riddle. 2005. *Introduction to social network methods*. Riverside, CA: University of California, Riverside. Available on-line: <http://faculty.ucr.edu/~hanneman/nettext/>
- Kainer, K.; M. Schmink; H. Covert; J.R. Stepp; E. Bruna; J. Dain; S. Espinosa and S. Humphries. 2006. A Graduate Education Framework for Tropical Conservation and Development. *Conservation Biology* v. 20, n.1, 2006, p. 3-13.

- Klein, J. T. 2010. A taxonomy of interdisciplinarity. In: Frodeman, R. ed. 2010. *The Oxford handbook of interdisciplinarity*. Oxford, New York : Oxford University Press. Chapter 2, pgs 15-30. (no need to purchase the book)
- Klein, J. T. 2011. Creating interdisciplinary campus cultures: a model for strength and sustainability. San Francisco, Jossey-Bass/Association of American Colleges and Universities. In: Tempel, E. R., T. L. Seiler, E. E. Aldrich (eds.). 2011. *Achieving Excellence in Fund Raising*, Jossey-Bass, San Francisco.
- Latour, B. 1998. From the World of Science to the World of Research? Essays on Science and Society. *Science* 10 April 1998: Vol. 280 no. 5361 pp. 208-209.  
<http://www.sciencemag.org/content/280/5361/208.full>
- McMynowski, D. P. 2007. Pausing at the brink of interdisciplinarity: power and knowledge at the meeting of social and biophysical science. *Ecology and Society* 12(1): 20. [online] URL:  
<http://www.ecologyandsociety.org/vol12/iss1/art20/>
- Morel, C. M., S. J. Serruya, G. O. Penna and R. Guimarães. 2009. Co-authorship network analysis: a powerful tool for strategic planning of research, development and capacity building programs on neglected diseases. *PLoS Neglected Tropical Diseases* 3 (8): e501.  
<http://www.plosntds.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pntd.000501&representation=PDF>
- Noorden, R. V. 2015. Interdisciplinary Research by the Numbers. *Nature* 525: 306-307, 17 Sept 2015.
- Pohl, C., G. Wuelser, P. Bebi, H. Bugmann, A. Buttler, C. Elkin, A. Grêt-Regamey, C. Hirschi, Q. B. Le, A. Peringer, A. Rigling, R. Seidl, and R. Huber. 2015. How to successfully publish interdisciplinary research: learning from an Ecology and Society Special Feature. *Ecology and Society* 20(2): 23.  
<http://dx.doi.org/10.5751/ES-07448-200223>
- Reed, M; A. Graves; N. Dandy; H. Posthumus; K. Hubacek; J. Morris; C. Prell; C. H. Quinn; and C. Lindsay. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90 (5):1933-1949.  
<https://www.sciencedirect.com/science/article/pii/S0301479709000024?via%3Dihub>
- Smith, L. T. 2012. *Decolonizing Methodologies. Research and Indigenous Peoples*. 2<sup>nd</sup> ed. London and New York, Zed Books. (no need to purchase the book)
- Teegavarapu, S. and J. Summers. 2008. Case-study method for research design. In *Proceedings of IDETC/DTM 2008*. New York City, August 3-6, 2008. <file:///C:/Users/User/Downloads/DETC2008-casestudiesindesign-02-09-08.pdf>
- Tress B, Tress G, Fry G. 2006. Defining concepts and the process of knowledge production in integrative research. In: Tress B, Tress G, Fry G, Opdam P, editors. *From landscape research to landscape planning*. Dordrecht: Springer. pp. 13–26.
- Weingart, P. 2010. A short history of knowledge formations. In: R. Frodeman (ed). 2010. *The Oxford Handbook of Interdisciplinarity*. Oxford, New York, Oxford University Press. Pp. 3-14. (no need to purchase the book)
- Whyte, K. P. 2013. On the role of traditional ecological knowledge as a collaborative concept: a philosophical study. *Ecological Processes* 2:7. <http://www.ecologicalprocesses.com/content/2/1/7>

Žukauskas, P, J. Vveinhardt, and R. Andriukaitiene. 2018. Research Ethics. In: Žukauskas, P, J. Vveinhardt, and R. Andriukaitiene (eds.) *Management Culture and Corporate Social Responsibility*. IntechOpen, online: <http://dx.doi.org/10.5772/intechopen.70629>

### **About the Instructor:**

**Dr. Simone Athayde** is an Associate Professor with a joint appointment in the Department of Global and Sociocultural Studies (GSS) and the Kimberly Green Latin American and Caribbean Center (LACC) at FIU. She is trained as an environmental anthropologist and interdisciplinary ecologist, interested in advancing theoretical and methodological approaches for inter- and trans-disciplinary research and co-production of knowledge between the biophysical and the social sciences, as well as between academia and society. She holds a bachelor's degree in Biology, Specialization in Environmental Education and two master's degrees, in Botany (UFPR, Brazil) and in Ethnobotany (University of Kent, UK). In 2010, she earned her doctoral degree in Interdisciplinary Ecology from University of Florida (UF), with concentration in Anthropology and a certificate in Tropical Conservation and Development (TCD). She has carried out extensive training and research activities in collaboration with universities, NGO's and indigenous organizations, as well as long-term ethnographic and participatory research among Indigenous peoples across the Amazon. Dr. Athayde is currently a Coordinating Lead Author of the Methodological Assessment on the Diverse Values and Valuation of Nature and its Contributions to People for the Intergovernmental Science-Policy Panel on Biodiversity and Ecosystem Services (IPBES) coordinated by the United Nations (UN). She is also a Lead Author of the Science Panel for the Amazon (SPA), an initiative of the United Nations Sustainable Solutions Networks. Her work has been widely published and recognized with awards from the University of Florida Tropical Conservation and Development Program, from the International Society of Ethnobiology, from the Brazilian Ministry of Culture, and from the Center for Entrepreneurship and Innovation at UF.

Department of Earth and Environment

March 8, 2021

To: Simone Athayde, Associate Professor, Global and Sociocultural Studies (GSS)  
From: Leonard J. Scinto, Chair, Earth and Environment  
Re: Support for SYD 6901 – Interdisciplinary methods in social-ecological research

Dear Dr. Athayde:

This memo is meant to acknowledge the Department of Earth and Environment's (E&E) support for your course, currently taught experimentally, to become a regularly listed course offering. So far the E&E students taking your course "Interdisciplinary methods in social-ecological research" have had very positive perceptions of the course. Several exclaiming that "they love this course". You are covering an emerging area of our disciplines, socio-ecological system theory and analysis using cutting edge research tools. This course is timely, needed, and does not conflict with any of the current courses offered in E&E. This course will bring new expertise to E&E students especially those in our MS in Environmental Studies, MS in Environmental Policy and Management, and PhD in Earth Systems Science among others. One faculty suggested that it is far past time that FIU offered a course like this. Given all the above, the Department of Earth and Environment endorses this course. Best of Luck with its development.

Sincerely,



Leonard J. Scinto  
Chair and Assoc. Professor