Ecosystem Services: a tool for sustainable development (14E187)
Institut des Sciences de l'Environnement, Université de Genève

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Semester:	Fall 2019
Lectures:	Thursdays 2-4pm, SCII457 (Science II)
Instructor:	Dr. Martin Schlaepfer
Office hours:	By appointment
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Instructor:	Prof. Juliet Fall
Office hours:	By appointment
Location:	Carl-Vogt, room B510
Email:	Juliet.Fall@unige.ch
Web & technical-support:	Erica Honeck (Erica.Honeck@unige.ch)
Prerequisites:	none
Readings:	Readings will be made available in pdf format.

Overview:

Ecosystem Services: a tool for sustainable development is a Master-level course open to all students of the University of Geneva (MUSE, MDT, etc.) and HEPIA. Ecosystem services are a way of thinking about - and evaluating - the goods and services provided by nature that contribute to the well-being of humans. Examples include marketable goods such as timber and fish, as well as non-market services like the natural purification of water by wetlands, the inherent value of species, and cultural value of traditional landscapes.

In the last decade, there has been a surge of interest in managing natural resources according to what is now called the ecosystem services approach. Two significant benefits of this approach include the ability to formally integrate non-market values into cost-benefit analyses, and to predict how services will be affected under future land-use management. Numerous organizations and governments (including Switzerland's) are exploring this approach as a way to reduce negative externalities and promote intra- and intergenerational fairness. This course seeks to provide an introduction of the ecosystem services method through a mixture of theory and applied case-studies.

Learning outcomes:

Students who diligently read assigned articles, complete assignements, and participate in laboratory exercices will be able to:

1) Put into practice the ecosystem services approach, including the ability to identify and value the ecosystem services associated within a given resource-area;
2) Appreciate the socio-historic and ethical context from which this method emerged, as well as the strengths and limitations of the method; and
3) Identify situations in which the ecosystem services method is likely to provide added-value to current management approaches.

Grading policy:
Quizzes: 25%
Presentation: 15%
Fact-sheet: 30%
Portfolio: 30%
Bonuses maximum: 5%

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6	A	100
5.75	A	95
5.5	B	90
	B	85
5.25	B	80
5	C	75
4.75	C	70
4.5	D	65
	D	60
4.0	E	55

Scholastic Honesty:

We expect students to act with integrity and follow the University's Code of Academic Integrity. You are encouraged to study together and to discuss information and concepts covered in lecture with other students. You can give and receive "consulting" help. However, this permission to cooperate should never involve one student having possession of a copy of all or part of work done by someone else, in the form of digital or hard copy. Ultimately, your work should be original.

Communication:

Our preference is that academic questions be asked in class where all can hear, although we are happy to discuss questions of interest is smaller groups too. If you happen to experience personal difficulties during the semester, please inform one of us (if only in general terms) as soon as you feel that your academic performance is being affected. We are happy to accomodate specific circumstances to ensure your academic success.

We look forward to spending this semester with you.

Martin Schlaepfer
Anthony Lehmann
Juliet Fall

Provisional schedule of course Ecosytem Services (14E187), fall 2019:

1. 19 Sept. Intro to instructors and ES, Trade-off game (all)
2. 26 Sept. Poll results, ES method; links biodiversity ES, intro Bateman; prepare peer-reviews (MS)
3. 3 Oct Discuss Bateman, feedback to reviewers, project NOS-ARBRES (MS)
4. 10 Oct. Field trip (MS)
5. 17 Oct. Limits, and critics of ES method I (JF**)**
6. 24 Oct. Valuation 1 (MS)
7. 31 Oct. Valuation 2; Psychological well-being (MS)
8. 7 Nov. Mainstreaming (MOOC, MS, SDS reading week)
9. 14 Nov. Scenarios and tools (AL)
10. 21 Nov. Limits, and critics of ES method II (JF)
11. 28 Nov. Looking beyond ES: nexus (AL)
12. 5 Dec. Systems analysis and mainstreaming (LG and/or MS)
13. 12 Dec. Group work (MS present)
14. 19 Dec. Group presentations

Exam periods:
Monday 20, January – 7 February 2020 (Faculté des Sciences)