

Master's Degree in Sustainable Development msd

#### Medium-term syllabus MSD 2017 - fall semester 2025

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This medium-term syllabus serves all students as a tool to plan their studies. The adaptions are published regularly, usually simultaneously with the upload of the course directory of the University of Basel/once a semester.

In addition to the guidelines of the Master's Degree in Sustainable Development, the medium-term syllabus contains information regarding titles, teaching, format, credit points, frequency and in some cases also on admission requirements of specific classes. Please consider also the information whether a class is mandatory or not.

For details regarding learning objectives, content, timetable, allocated rooms, participation criteria, registration modalities of the courses and final assessment, please consult the online course directory.

Content-related information to the three focus areas and modules are documented in the guidelines, in the study regulations and on the <u>website MSD</u>. Also consider the "optimal course progression" plans (for full time and part time study available; see <u>downloads MSD 2017</u>).

Shortcuts of the course formats (alphabetical order, translation according to glossary of Unibas):

C: course; CL: core lecture (Kernvorlesung); Coll: colloquium; FT: field trip (Exkursion); I: internship (Praktikum); L: lecture; PC: practical course (Übung); Pro: project; S: seminar; Tut: tutorial.

Further selected shortcuts (translation according to the glossary of Unibas): fall: fall semester; spring: spring semester;

LA: learning agreement; LC: learning contract; TA: teaching assignment;

LEEC: Landscape Ecology and Ecosystems Conservation; head = Prof. Dr. A. Morán Ordóñez (natural sciences), since 01.02.2025. SRG: Sustainability Research Group; head = Prof. Dr. Grabs (social sciences). EnvEcon: Environmental Economics; head = Prof. Dr. Krysiak (economics).

#### **Color coding**

Courses in light **green** = offer of the **current semester**; pages at the end in **yellow**: recommendations for **FASR** module.

Color coding main topics: • = dark blue = food, agriculture & consumption; • = pink = governance; • = brown = biodiversity; • = light blue = energy.

Curriculum (according to the three focus areas; see study regulations §7)

#### **Natural Sciences**

- Complementary Knowledge modules (CK)
  - in Social Sciences (CK Soc) 12 CP
  - in Economics (CK Econ) 12 CP
- Interdisciplinary Research in Sustainability (IRS)24 CP
- Core Competences in Natural Sciences (CC Nat) 15 CP
- Preparation Master's Thesis in Natural Sciences (PM Nat) 15CP

- Master's Thesis Natural Sciences 30 CP
- Focal Areas in Sustainability Research module (FASR) 12 CP

#### **Social Sciences**

- Complementary Knowledge modules (CK)
  - in Natural Sciences (CK Nat) 12 CP
  - in Economics (CK Econ) 12 CP
- Interdisciplinary Research in Sustainability (IRS) 24CP
- Core Competences in Social Sciences (CC Soc) 15 CP
- Preparation Master's Thesis in Social Sciences (PM Soc) 15 CP
- Master's Thesis Social Sciences 30 CP
- Focal Areas in Sustainability Research module (FASR) 12 CP

#### **Economics**

- Complementary Knowledge modules (CK)
  - in Natural Sciences (CK Nat) 12 CP
  - in Social Sciences (CK Soc) 12 CP
- Interdisciplinary Research in Sustainability(IRS) 24 CP
- Core Competences in Economics (CC Econ) 15 CP
- Preparation Master's Thesis in Economics (PM Econ) 15 CP
- Master's Thesis Economics 30 CP
- Focal Areas in Sustainability Research module (FASR) 12 CP

# Complementary Knowledge modules (CK)

# Complementary Knowledge in Natural Sciences (CK Nat) 12 KP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
41828: Perspectives of Natural Sciences on Sustainability ••	A. Morán Ordóñez/MSD- LEEC	L + PC	3	Fall 25	Every fall	These classes are mandatory. A different choice is only allowed to students who have
20721: Ecosystems – Concepts, Principles and Processes ●	NN	L + PC	3	Fall 25	Every fall	<ul> <li>a) attended and accredited the same class(es) in their bachelor's degree;</li> <li>b) attended and accredited comparable class(es) in their bachelor's degree;</li> </ul>
40076: Technical Basis of Generation, Distribution and Storage of Energy •		L + PC	3	Not in spring 25	-	c) a first degree in natural science (major or minor).
<ul> <li>Spring 25: 40076 is to be replaced by</li> <li>29001: Introduction to Energy Economics 2</li> <li>OR: 34499: Current Research in Stream Ecology (seminar with 2 CP; plus additional assignment, 1 CP (details to be fixed with LC)</li> </ul>	H. Weigt  OR St. von Fumetti	L S+LC	3 2+1	Spring 25	Either or! Arrangement only valid for spring 25	If a) b) or c) applies to you, other class(es) are to be taken. These are to be fixed in a learning agreement signed by Prof. Dr. A. Morán Ordóñez (template available as download/Forms & Templates).
36792: Terrestrial Ecosystem Ecology and Sustainable Landuse ••	A. Kahmen Botany & Ecology	L	2	Spring 25	Every spring	
50260: Ecology and Evolution ●	J. Beck MSD with TA	L	1	Spring 25	Every spring	

# Complementary Knowledge in Social Sciences (CK Soc) 12 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
41829: Perspectives of Social Sciences on Sustainability ••	J. Grabs MSD-SRG	L+PC	3	Fall 25	Every fall	These classes are mandatory. A different choice is only allowed to students who have a) attended and accredited the same class(es) in their bachelor's degree;

14253: Environmental Ethics and Intergenerational Justice ••	B. Schmitz MSD with TA	S	3	Fall 25	Every fall	b) attended and accredited comparable class(es) in their bachelor's degree; c) a first degree in social science (major
11513: Sustainability: A new Societal Paradigm? •	J. Grabs MSD-SRG	L + PC	3	Spring 25	Every spring	or minor).  If a), b) or c) applies to you, other class(es) ar
17403: Governance, Sustainable Development and Democracy ••	Ch. Depoorter MSD-SRG	S	3	Spring 25	Every spring	to be taken. These are to be fixed in a learning agreement signed by Prof. Dr. Janina Grabs (template available as download/Forms &

# Complementary Knowledge in Economics (CK Econ) 12 CP ••••

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
48981: Intensive Introduction to Intermediate Economics •	D. Illic/Econ	L	6	Fall 25	Every fall	These classes are mandatory. A different choice is only allowed to students who have a) attended and accredited the same class(es) in their bachelor's degree; b) attended and accredited comparable class(es) in their bachelor's degree; c) a first degree in economics (major or minor).
10160: Introduction to Environmental Economics •	F. Krysiak EnvEcon-MSD Ch. Nolde/Econ	L+ PC	3	Spring 25	Every spring	If a), b) or c) applies to you, other class(es) are to be taken. These are to be fixed in a learning agreement signed by Prof. F. Krysiak (template
71004: Resource Economics •	F. Krysiak EnvEcon-MSD Hochuli/Econ	L+ PC	3	Spring 25	Every spring	available as <a href="mailto:download">download</a> /Forms & Templates).  71004 not eligible if you have done 10160 in spring 23 or in a former semester.

# Interdisciplinary Research in Sustainability (IRS) 24 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
48953: Sustainable Developme Introduction into Topics and Ap	–	ñez. CL	3	Fall 25	Every fall	Mandatory. Please consider the special passing requirement for core lectures according to the detailed course directory.

48954: Tools and Methods for Interdisciplinary Research	I. Schubert, A. Sohre/MSD with TA-SRG	CL	3	Fall 25	Every fall	Mandatory. Please consider the special passing requirement for core lectures according to the detailed course directory.
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#### Selection of courses in disciplinary methods

According to the MSD study regulations, students have to take **three** courses on **disciplinary methods** (3 x 3 CP). These courses provide insights into the methods of the three main and related MSD disciplines that are particularly relevant to the degree program.

Since spring semester 2023, the offer is extended by alternative method courses of a higher level. NOTE: These are only eligible for students with preliminary knowledge and first degrees in this field. I.e., by default, students enroll in the officially published courses (48955, 60867 or 43494) and the credit points are automatically awarded for this module.

Since the **alternative courses** are only listed in the medium-term syllabus but not published in the online course directory for this module, students must complete a **learning agreement in advance** (template see downloads MSD 2017) for the recognition of credit points. Prior to that, they get in touch with the responsible (see below) by email to clarify this modification:

Prof. Dr. P. Holm: Methods in natural sciences; Prof. Dr. Janina Grabs: Methods in social sciences: Prof. Dr. Frank Krysiak: Methods in economics.

Methods in <b>natural sciences</b> by default: 48955: Tools and Methods of Natural Sciences Research  Alternative for students with preliminary knowledge and disciplinary degree:		S	3	Spring 25	Every spring	Students have to enroll for the basic lecture 48955. Only students with preliminary knowledge and first degree in this field are allowed to take one of the listed alternatives. For details see information on the top of this module.
<ul> <li>57405: Analytical chemistry of the atmosphere – quantifying climate change</li> <li>53558: Biotic Indicators and Palaeoecological Reconstruction</li> </ul>	D. Häussinger/Chem. O. Heiri/Geosc.	L L+P	3	Spring 25 Fall 24	Irregular Every fall	Alternative eligible only for students with preliminary knowledge of 48955. It's mandatory to complete a learning agreement in advance. 53558: requests an additional CP via LC (use the tool of LC on Online Services).

Methods in <b>social sciences</b> by default:  60867: Qualitative Research in Sustainability Science  Alternative for students with preliminary knowledge and disciplinary degree, i.e. 60867 would be a repetition  58388 Kurs: Mixed Methods	A. Sohre/MSD  M. Bergman/Soc	C K	3	Spring 25 Spring 25	Every spring	Students have to enroll for the basic course 60867. Only students with preliminary knowledge and first degree in this field are allowed to take one of the listed alternatives. For details see information on the top of this module.  Alternative eligible only for students with preliminary knowledge of 60867. It's mandatory to complete a learning agreement in advance.
Methods in <b>economics</b> , by default:  43494: Methods in Economics: Survey Research Methodology	D. Auer/Econ	Coll	3	Spring 25	Every spring	Students have to enroll for the basic course 43494. Only students with preliminary knowledge and first degree in this field are allowed to take one of the listed alternatives. For
Alternative for students with preliminary knowledge and disciplinary degree:  62659: Numerical Methods and				0		details see information on the top of this module.  Alternatives eligible only for students with preliminary knowledge of 43494.
Optimization • 16036: Regression and Statistical Learning (new title!)	H. Weigt/Econ  K. Kleiber/Econ	L	3	Spring 25 Spring 25	Every spring  Every spring	It's mandatory to complete a learning agreement in advance.
50729: Training for Sustainability Research •••	Ph, Hirsch, F. Krysiak, A. Sohre, I. Schubert MSD	Pro	6	Spring 25	Every spring	Mandatory.
Master colloquium A: 50399: Introduction to Ongoing MSD Master's Thesis	A. Morán Ordóñez J. Grabs, <b>F.</b> <b>Krysiak</b> - all MSD	Coll	1	Fall 25	Every semester	Mandatory. Enrollment of the colloquia A, B and C according to this listing. For details regarding participation criteria, assessment and
Master colloquium B: 52317: Presentation of Concepts of MSD Master's Thesis	- all IVIOU	Coll	1	Fall 25	Every semester	registration of presentations (coll. B & C) see detailed online course directory.
Master colloquium C: 53982: Presentation of Results of MSD Master's Thesis		Coll	1	Fall 25	Every semester	

# Core Competences module (CC) Core Competences in Natural Sciences (CC Nat) 15 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module	
62246: Sustainability in Practice ••••	P. Holm, F. Krysiak/ - all MSD	С	3	Fall 24	Irregular	For Choice. The TC MSD strongly recommends to accredit this course for the FASR module. Special entry requirements & course application.	
70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	Coll	3	Fall 25	Irregular	For choice. Also suitable for the FASR module. Course offer in cooperation with EPICUR, EUCOR.	
49077: Global Change Resources •	M. Andres MSD with TA	L + PC	3	Fall 25	Every fall	Mandatory.	
50264: Global Change Ecology ••	S. Abel MSE-MSD	L + PC	3	Spring 25	Every spring	Mandatory.	
41821: Ecological Sustainability Aspects of Climate Change ••	D. Schindler MSD with TA	L + PC	3	Fall 24	Irregular	For choice.	
25635: Transformation of Energy Systems to Renewable Energy Flows••	R. Rechsteiner Geosciences	L + PC	2	Fall 23	Every 2nd fall Not in fall 25		
23839: Introduction to Research Projects of Environmental Geosciences and Biogeochemistry	Ch. Alewell et al. Geosciences	L + PC	4	Spring 25	Every spring		
24129: From Anthropogenic Landscapes to Wilderness Management ●	Ch. Alewell, A. Lang Geosciences	FT	3	Fall 24 Field trip: 5 14.09.24	Irregular	For choice. Prep. day: 02.09.24. For details see course directory.	
12127: From Anthropogenic Landscapes to Wilderness Management •		Р	3	Fall 24	Irregular	For choice. Only in combination with 24129.	
60310: Agroecological Farming: the example of organic agriculture • (former title: Introduction to organic farming systems) • •	E. Bünemann- König, with TA	L + PC	3	Spring 25	Irregular	For choice.	

23832: Oceanography: Regional Oceanography & Marine Ecosystems •	M. Lehmann Geosciences	L	2	Spring 25	Every spring
27336: Pflanzenschutz und nachhaltiger Pflanzenbau ••	<b>D. Klauser</b> , P. Flury Integr. Biology	L	1	Spring 25	Every spring
23138: Sustainable Plant Systems ••	K. Schläppi	L	2	Fall 25	Every fall
74556: Climate Justice: Basel in the World	J. Grabs MSD- SRG	Coll.	3	Spring 25	Once

# Core Competences in Social Sciences (CC Soc) 15 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
62246: Sustainability in Practice ••••	P. Holm, F. Krysiak/ - all MSD	С	3	Fall 24	Irregular	For Choice. The TC MSD strongly recommends to accredit this course for the FASR module. Special entry requirements & course application.
70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	Coll	3	Fall 25	Irregular	For choice. Also suitable for the FASR module. Course offer in cooperation with EPICUR, EUCOR.
14253: Environmental Ethics and Intergenerational Justice ••	B. Schmitz MSD with TA	S	3	Fall 25	Every fall	Mandatory.
11513: Sustainability: A New Societal Paradigm? ●	Janina Grabs MSD-SRG	L + PC	3	Spring 25	Every spring	Mandatory.
41822: Governance of Energy Transition ••	A. Sohre MSD- SRG LA	S	3	Fall 23	Every fall	For choice
57243: Quality of Life and Sustainability: Theoretical and Empirical Approaches	M. Christen, A. Hearn, SRG -with TA MSD	S	3	Fall 23	Once	
17403: Governance, Sustainable Development and Democracy ••	Ch. Depoorter MSD-SRG	S	3	Spring 25	Every spring	

43667: Changing Individual Energy Behaviour - Approaches & Strategies ••	I. Schubert MSD- SRG	S	3	Fall 25	Irregular
70816: Sustainability Governance in International Value Chains•	Ch. Depoorter MSD-SRG	S	3	Spring 25	Every spring
71012: Sozial-ökologische Transformationen: theoretische Konzepte, empirische Befunde und politische	KW. Brand Sociology	S	3	Spring 24	Once
72873: Critical Political Economy: Growth, Inequality and Planetary Boundaries •	J. Grabs MSD-SRG	S	3	Fall 24	Irregular
72607: Sustainability From the Bottom-Up: How Grassroots Innovations Contribute to Societal Transitions •	R. Roysen et al./Master religion-economics-political	S	3	Fall 24	Once
74277: International Organizations and Sustainable Development •	Ch. Depoorter MSD-SRG	S	3	Fall 25	Irregular
67882: Energy Districts: A New Way to Realize a just Energy Transition? ••	A. Hearn	S	3	Spring 25	Irregular
74556: Climate Justice: Basel in the World	J. Grabs MSD- SRG	Coll.	3	Spring 25	Once

# Core Competences in Economics (CC Econ) 15 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
62246: Sustainability in Practice ••••	P. Holm, F. Krysiak/ - all MSD	С	3	Fall 24	Irregular	For choice. The TC MSD strongly recommends to accredit this course for the FASR module. Special entry requirements & course application.
70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	Coll	3	Fall 25	Irregular	For choice. Also suitable for the FASR module. Course offer in cooperation with EPICUR, EUCOR.
12036: Econometrics	K. Schmidheiny et. al./ Econ	L	6	Fall 25	Every fall	For choice:  No mandatory courses for this module.

48409: Corporate Responsibility •	G. von Schnur- bein/Econ	Coll	3	Fall 25	Every fall
41904: Industrial Organization	C. Roux/ Econ	L	3	Fall 25	Every fall
62651: Theory of the Firm	C. Roux/ Econ	L	3	Fall 25	Every fall
41957: Advanced Econometrics	K. Schmidheiny Econ	L	3	Fall 25	Every fall
10639: Consumer Behaviour: Theoretical Foundations	M. Brendl/Econ	Coll	3	Fall 25	Every fall
34505: The Rise of International Environmental Risks: Corporate & Government Management Strategies (new	J. Wargo/Econ	L	3	Fall 25: cancelled	Every fall
43030: Public Opinion and Science Communication ••	A. Kachi/Econ	L	3	Fall 25	Every fall
62643: Consumer Behavior: Marketplace Applications	J. Laran/Econ	С	3	Fall 25	Every fall
62650: Behavioral Science	M. Brendl/Econ	L	3	Fall 25	Every fall
53713: Environmental and Energy Economics ••	F. Krysiak EnvEcon-MSD	S	6	Fall 25	Every fall
65937: Advanced Microeconomics	G. Nöldeke et al./Econ	L	6	Fall 25	Every fall
68986 Vorlesung: Sustainable Finance	Y. Heo/Econ	L	3	Fall 25	Every fall
56949: The Economics of Climate Change	R. Lordan- Perret/Econ	Coll	3	Spring 23	-
10616: Applied Machine Learning	D. Maringer Econ	L	3	Spring 25	Every spring
17691: International Trade, Resources and the Environment •	M. S. Taylor Econ	L	3	Spring 25	Every spring
14255: Environmental Economics ••	F. Krysiak MSD- EnvEcon	L	3	Spring 25	Every spring

- The choice of classes for this module is to be done out of this list.
- Please consider the detailed course directory for more information regarding participation requirements etc.

43498: Psychological Theory in Consumer Behavior	M. Brendl/Econ	Coll	6	Spring 25	Every spring	
16036: Regression and Statistical Learning (new title!)	Ch. Kleiber Econ	L	3	Spring 25	Every spring	
50877: Economics of Global Health	G. Fink/Econ	L	3	Spring 25	Every spring	
62655: Energy Economics •	H. Weigt/Econ	L	3	Spring 25	Every spring	
60335: Introduction to Corporate Responsibility •	G. von Schnur- bein/Econ	L	3	Spring 25	Every spring	
65943: Advanced Macroeconomics	S. Lein/Econ	L	6	Spring 25	Every spring	
60336: Population & Economic Growth	R. Stelter/Econ	L	3	Spring 25	Every spring	
63593: Methods in Policy Impact Assessment • •	R. Delzeit R. Argueyrolles Geosciences	L+PC	3	Spring 25	Every spring	
67432: Sustainability in Banking and Finance	J. Henn et al. Econ	S	6	Spring 25	Every spring	Seminar for preparation MT.
74556: Climate Justice: Basel in the World	J. Grabs MSD- SRG	Coll.	3	Spring 25	Once	
75843: Changemakers in Circular Economy and Sustainability	P. Gantenbein et al. /Econ	Coll.	3	Spring 25	Every spring	

# Preparation Master's Thesis module (PM)

Preparation Master's Thesis in Natural Sciences (PM Nat) 15 CP The classes of this module are not published in the course directory but must be fixed and confirmed with a learning agreement (use MSD-form for this purpose, available on our website).

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
49078: Research Design Master's Thesis	A. Morán Ordóñez, J. Grabs, <b>F.</b> <b>Krysiak</b> - all MSD	С	3	Fall 25	Every semester	Mandatory.

74554: MSD Life Science	A. Morán Ordóñez LEEC-MSD	Coll	1	Fall 25	Every semester	Mandatory for all students who write the master's thesis within the focus area of natural science – to be transferred to this module (published in the Core Competences in Natural Science module).  Students who register for this colloquium more than once, may transfer the additional credits to the Focal Areas in Sustainability Research module.
Independent Research Work (IRW)	Supervisor according to learning contract (LC)	I	6 or 11	On agreeme	ent	Mandatory for all students who write the master's thesis within the focus area of natural science. The performance has to be fixed and confirmed in a <b>learning contract</b> in advance. It either contains 6 CP (if you write an additional seminar paper of 5 CP) or 11 CP (without seminar paper). Use template of LC from Online Services.
Seminar Paper	Supervisor according to learning contract (LC)		5	On agreeme	ent	Only if students opt for the IRW of 6 CP. The performance has to be fixed and confirmed in a learning contract in advance. Use template of LC from Online Services.

# Preparation Master's Thesis in Social Sciences (PM Soc) 15 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
49078: Research Design Master's Thesis	A. Morán Ordóñez J. Grabs, <b>F.</b> <b>Krysiak</b>	С	3	Fall 25	Every semester	Mandatory.
57245: Sustainability Science Research (social dimension)	J. Grabs SRG-MSD	Coll	1	Fall 25	Every semester	Mandatory.
50267: Current Topics in Social Science Based on Sustainability Research	A. Sohre SRG- MSD	S	3	Fall 25	Every fall	Mandatory.
Methods: 46737: Experimental research methods in social sciences	I. Schubert SRG-MSD	S	3	Fall 24	Irregular	For this module students have to attend a method course of min. 3 CP. The choice is to
Methods: 33426: Quantitative Data Analysis in African Studies	E. Macamo Afr. Studies	S	3	Spring 25	Every spring	be done out of this list.

Methods: 31938: Qualitative Data Analysis in African Studies	E. Macamo Afr. Studies	S	3	Fall 25	Every spring	
Methods: 48555: Research Methods in Social and Political Science	D. Höhmann Politic. Sciences	S	3	Fall 25	Every fall	
Methods: 49855: Research Methods in Social and Political Science	D. Höhmann Politic. Sciences	Tut	2	Fall 25	Every fall	
Methods: 63537: Living Labs and Participative Research for Sustainability Transitions •	A. Sohre I. Schubert SRG-MSD	S	3	Fall 23	Irregular	
Seminar Paper			5	On agreeme	nt.	Mandatory. Details regarding modalities see fact sheet master's graduation.

# Preparation Master's Thesis in Economics (PM Econ) 15 CP

No.: class title	Lecturer / subject area	Format	СР	Semester	Frequency	Notes concerning the registration of the class for the specific module
49078: Research Design Master's Thesis	A. Morán Ordóñez J. Grabs, <b>F.</b> <b>Krysiak</b> - all MSD	С	3	Fall 25	Every semester	Mandatory.
12036: Econometrics	K. Schmidheiny et al./Econ	L	6	Fall 25	Every fall	No other mandatory courses for this module.  The choice of classes for this module is to be
29002: Electricity Markets •	H. Weigt/Econ	L	3	Fall 25	Every fall	done out of this list.  Please consider the detailed course directory for
68984 Advanced International Macroeconomics	A. Müller/Econ	L	3	Fall 25	First time	more information regarding participation requirements etc.
31950: Corporate Governance	A. Kind et al. Econ	L	3	Fall 25	Every fall	
47275: Empirical Research in Public Economics	B. Hintermann Econ	S	6	Fall 25: cancelled	Every fall	
14255: Environmental Economics ••	F. Krysiak Econ-MSD	L	3	Spring 25	Every spring	
17691: International Trade, Resources and the Environment ●	M. S. Taylor Econ	L	3	Spring 25	Every Spring	

16036: Regression and Statistical Learning	Ch. Kleiber Econ	L	3	Spring 25	Every spring
62659: Numerical Methods and Optimization	H. Weigt Econ	L	3	Spring 25	Every spring
63593: Methods in Policy Impact Assessment ●●	R. Delzeit R. Argueyrolles Geosciences	L + PC	3	Spring 25	Every spring
10616: Applied Machine Learning	D. Maringer Econ	L	3	Spring 25	Every spring
31952: Microeconometrics: Panel Data	K. Schmiheiny Econ	L	3	Spring 25	Every spring
32934: Optimization and AI	D. Maringer Econ	L	3	Spring 25	Every spring

Focal Areas in Sustainability Research module (FASR): List of recommended courses see next pages (subject to modifications)
Focal Areas in Sustainability Research module (FASR) 12 CP

#### List of recommended courses: subject to modifications. For more offers see online detailed course directory

There is no notification of courses for this module in the detailed course directory (published each semester). The students make their choice by themselves. The list below serves as a suggestion for this module and covers one part of possible classes. We also recommend to review the course directories of other **master's programs** for **classes related to sustainable development** (e.g., Changing Societies, Biology, Sociology, Economics, Geosciences, Law, Psychology etc).

When choosing other classes, two criteria have to be considered:

- 1. The class has to be offered on **master level module** by the **program in charge** (see details in the course directory, section module and section assessment/last paragraph: offered by).
- 2. The class has to have a clear connection to sustainable development.

If you come across a course which is not listed and you would like to know whether it will be recognized or not you can send an email to <a href="mailto:coordination-msd@unibas.ch">coordination-msd@unibas.ch</a>. Please **list the course with the entire title and add the link to relevant entry of the detailed course directory**.

The courses have to be fixed in a learning agreement. Fact sheet and template are available on the website MSD/see downloads MSD 2017: <a href="https://www.msd.unibas.ch/en/services/downloads/msd-2017/">https://www.msd.unibas.ch/en/services/downloads/msd-2017/</a>

**MAKE SURE** you fulfill the **participation requirements** for the courses of your choice. Also, consider the details in the online course directory regarding **course application** and **enrollment**. These rules are according to the responsible course program.

#### **Natural Sciences**

NOTE: make sure, you fulfill any participation criteria. Especially, if you like to take a class in natural sciences and you have chosen the focus area in social sciences or in economics, you must have completed the "Complementary Knowledge in Natural Sciences" module (at least 8 out of 12 CP).

No.: class title	Lecturer	Format	СР	Frequency	Notes concerning the registration of the class for the specific module
50264: Global Change Ecology ••	S. Abel	L + PC	3	Every spring	Offered by the MSD. Special course inscriptions and entry requirements. Students with focus area in natural sciences can't transfer the credits to the FASR module as these are two mandatory classes
49077: Global Change Resources	M. Andres	L + PC	3	Every fall	for them (lectures 50265 & 49077).
41828: Perspectives of Natural Sciences on Sustainability ••	A. Morán Ordóñez/MSD- LEEC	L+PC	3	Every fall	Offered by the MSD/Pathways to Sustainability: only eligible for this module if students don't have to do the "Complementary Knowledge in Natural Science" module.
41821: Ecological Sustainability Aspects of Climate Change ●●	D. Schindler	L + PC	3	Every fall	Offered by the MSD. Special course inscription and entry requirements.
62246: Sustainability in Practice ••••	P. Holm F. Krysiak/ Env Econ - all MSD	С	3	Fall 24	
70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	С	3	Fall 25	
41280: Tree and Forest Ecology ●	G. Hoch M. Arend	L	2	Every fall	
23138: Sustainable Plant Systems ••	K. Schläppi	L	2	Every fall	
22696: Measurements & Policy Interactions in Climate Change and Air Pollution ••	S. Reimann et al.	L	3	Every fall	
11718: Current Ecological and Health Issues in Africa	G. Fink, J. Utzinger	S	2	Every fall	

24129: From Anthropogenic Landscapes to Wilderness Management ●	Ch. Alewell, A. Lang Geosciences	FT	3	Every 2nd fall sem.	Only in combination with 24129. Fall 24: field trip: 0514.09.24 Prep. day: 02.09.24
12127: From Anthropogenic Landscapes to Wilderness Management ● (project; new title)	C. Alewell, A. Lang	Р	3	Every 2nd fall sem.	
50260: Ecology and Evolution ●	J. Beck	L	1	Every spring	Offered by the MSD. Students with focus area in social sciences and economics can't transfer the credits to the FASR module as the three courses are mandatory for the "Complementary Knowledge in Natural"
40076: Technical Basis of Generation, Distribution and Storage of Energy	NN	L + PC	3	not in spring 25	
36792: Terrestrial Ecosystem Ecology and Sustainable Landuse ●●	A. Kahmen	L	2	Spring 25	
24172: Marine Biological Considerations at the Strait of Gibraltar •	P. Holm, S. Abel	FT	3	Fall 24: last time	Offered by the MSD. Last time. Start: 02.09.24 late afternoon; end: 09.09.23 (last day & departure)
33155: Marine Biogeochemistry and Biology in Elba, Italy ●	M. Lehmann et al.	FT	4	Every 2nd spring sem.	Special registration procedure; see online course directory
60310: Agroecological Farming: the example of organic agriculture • (former title: Introduction to organic farming systems) • •	E. Bünemann- König	L + PC	3	irregular	Co-offered by the MSD.
23832: Oceanography: Regional Oceanography & Marine Ecosystem •	M. Lehmann	L + PC	2	Every spring	
27336: Pflanzenschutz und nachhaltiger Pflanzenbau ••	<b>D. Klauser</b> , P. Flury	L	1	Every spring	

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20045: Alpine Plant Ecology ●	E. Hiltbrunner et al.	FT	3	Every spring	Fieldtrip in July 24. Details see online course directory
63591: The Interplay of Agriculture, Environmental and Energy Policy •••	R. Delzeit R. Argueyrolles	L	3	Every fall	
14630: Biological and Integrated Pest Management ••	R. Peveling	L + PC	2	Every spring	
48622: Climate Change and Health	M. Ragettli	L + PC	1	Every spring	
69063: Current Research in Global Change Ecology	S. Rumpf	Researc h Seminar	1	Every semester	Research seminar for students with an interest in writing a master's thesis in the field of global change ecology
74556: Climate Justice: Basel in the World	J. Grabs MSD-SRG	Coll.	3	Spring 25	Once

#### **Social Sciences**

NOTE: make sure, you fulfill any participation criteria. Especially, if you like to take a class in social sciences and you have chosen the focus area in natural sciences or in economics, you must have completed the "Complementary Knowledge in Social Sciences" module (at least 8 out of 12 CP)

No.: class title	Lecturer	Format	СР	Frequency	Remarks (for details see online course directory)
41829: Perspectives of Social Sciences on Sustainability ••	J. Grabs	L + PC	3	Every fall	Offered by the MSD/Pathways to Sustainability: only eligible for this module if students don't have to do the "Complementary Knowledge in Social Science" module.
62246: Sustainability in Practice ••••	P. Holm, F. Krysiak/ Env Econ - all MSD	С	3	Fall	Irregular. Offered by the MSD. Special course inscription.

70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	С	3	Fall 25	
41822: Governance of Energy Transitions	A. Sohre	S	3	Irregular	Offered by the MSD. Admission requirements.
43667: Changing Individual Energy Behaviour – Approaches & Strategies ••	I. Schubert	S	3	Fall 25	
17403: Governance, Sustainable Development and Democracy ••	Ch. Depoorter MSD-SRG	S	3	Every spring	Offered by the MSD. Special course inscription. Students with focus area in natural sciences and economics can't transfer the credits to the FASR module.
50267: Current Topics in Social Science Based Sustainability Research	A. Sohre	S	3	Every fall	Offered by the MSD. Admission requirements. Students with focus area in social sciences can't transfer the credits to the FASR module.
73093: Basel Sustainability Forum: Societal Perspectives	M. Bergman	L	2	Fall 24	Once. M. Bergman offers similar classes almost every semester.
67882: Positive Energy Districts: A New Way to Realize a just Energy Transition?	A. Hearn	S	3	Spring 25	Irregular. Offered by the MSD. Special course inscription
70816: Sustainability Governance in International Value Chains	Ch. Depoorter	S	3	Spring 25	Offered by the MSD. Special course inscription.
71012: Sozial-ökologische Transformationen: theoretische Konzepte, empirische Befunde und politische	B. Bornemann	S	3	Spring 24	Once
71251: Urban Afterlives of Resource Extraction Landscapes	E. Sewordor	S	3	Spring 24	Once
67545: Alternative Economies and Their Societal Implications	M. Simoens	S	3	Spring 24	Not anymore
72276: Sustainable Eucor Cities? Exploring Your City Through the Lens of the Sustainable Development Goals. Mapping – Analysis – Action	M. Frick	S	3	Spring 24	Once. Bloc seminar in February 24. Details see online course directory
72607: Sustainability From the Bottom-Up: How Grassroots Innovations Contribute to Societal Transitions	R. Roysen et al.	S	3	Fall 24	Once

74002: The Roots of Social Change? Grassroots Movements in Political Transitions	L. Kos	Ü	3	Fall 24	Once
71012: Sozial-ökologische Transformationen: theoretische Konzepte, empirische Befunde und politische Gestaltungsansätze	KW. Brand	S	3	Spring 24	Once
72873: Critical Political Economy: Growth, Inequality and Planetary Boundaries •	J. Grabs MSD-SRG	S	3	Fall 24	Offered by the MSD. Admission requirements.
74277: International Organizations and Sustainable Development •	Ch. Depoorter MSD-SRG	S	3	Fall 25	Offered by the MSD. Admission requirements.
74556: Climate Justice: Basel in the World	J. Grabs MSD-SRG	Coll.	3	Spring 25	Once
76420: Urban Climate Justice	J. Schubert	S	3	Fall 25	Once
25542: Organisationale Verantwortung und Legitimationsprozesse	C. Daub	S	3	Fall 25	Irregularly
76656: Die sozial-ökologische Transformation der Welt: Krisen, Umbrüche und Konflikte	B. Bornemann KW. Brand	S	3	Fall 25	Once
76655: Alternative Globalizations of the Food System: Ideas, Institutions and Practices	B. Bornemann A. Kaiser	S	3	Fall 25	Once
76212: Consumption Corridors: Theoretical Fundament and Transdisciplinary Development	A. Di Giulio	S	3	Fall 25	Once

### **Economics**

NOTE: make sure, you fulfill any participation criteria. Especially, if you like to take a class in economics and you have chosen the focus area in natural sciences or in social sciences, then you must have completed the "Complementary Knowledge in Economics" module (at least 8 out of 12 CP).

No.: class title	Lecturer	Format	СР	Frequency	Remarks (for details see online course directory)
14255: Environmental Economics • •	F. Krysiak	L	3	Every spring	
43030: Public Opinion and Science Communication ••	A. Kachi	L	3	Every fall	

color coding: • = dark blue = food, agriculture & consumption; • = pink = governance; • = brown = biodiversity; • = light blue = energy.

29002: Electricity Markets	H. Weigt	L	3	Every fall	
31954: International Economics	T. Erhardt, C. Hefeker	S	6	Every fall	
34505: The Rise of International Environmental Risks: Corporate and Government Strategies (new title)	J. Wargo	L	3	Every fall	Summer school (August). For details see online course directory. Fall semester 25: cancelled
10639: Consumer Behaviour: Theoretical Foundations	M. Brendl	Coll	3	Every fall	
62246: Sustainability in Practice ••••	P. Holm, F. Krysiak/ Env Econ - all MSD	С	3	Fall 24	Irregular. Offered by the MSD. Special course inscription.
70817: Sustainability Assessment	F. Krysiak, A. Sohre/MSD M. Frick	С	3	Fall 25	
17691: International Trade, Resources and the Environment •	M. Scott Taylor	L	3	Every spring	
43700: Perspectives of Economics on Sustainability •	V. Calenbuhr	L + PC	3	Every spring	Offered by the MSD/program "Pathways to Sustainability" (TQNE), eligible for all MSD students.
50877: Economics of Global Health	G. Fink	L	3	Every spring	
53713: Environmental and Energy Economics ••	F. Krysiak	S	6	Every fall	NOTE: Special participation requirements and application process according to information in the detailed course directory.
60335: Introduction to Corporate Responsibility •	G. von Schnurbein	L	3	Every spring	
62655: Energy Economics •	H. Weigt/Econ	L	3	Every spring	
74556: Climate Justice: Basel in the World	J. Grabs MSD-SRG	Coll.	3	Spring 25	Once
75843: Changemakers in Circular Economy and Sustainability	P. Gantenbein et al. /Econ	Coll.	3	Every spring	First time in spring 25

Other Faculties/interdisciplinary courses: see next page

Other Faculties/interdisciplinary courses
NOTE: make sure, you fulfill any participation criteria. For details see detailed course directory.

No.: class title	Lecturer	Format	СР	Frequency	Remarks (for details see online course directory)
43701: Interdisciplinary Approach to Sustainability •	A. Kaiser	S	3	Every spring	Offered by the MSD/program "Pathways to Sustainability" (TQNE): eligible for all MSD students.
20580: Umweltrecht	D. Turnherr Keller	L	6	Every spring	
69397: Internationales Umwelt-, Klima- und Nachhaltigkeitsrecht	A. Müller	L	6	irregular	
66008: Urban Climate Change	S. Haile	Ü	3	Fall 24	Irregular
74435: Sustainability and Worldviews	J. Köhrsen	L	3	Spring 25	Once