# **Content**

In collaboration with the Critical Edge Alliance, Roskilde University has chosen to offer a two-week summer course about the UN Sustainable Development Goals. Through this course, participants will address a number of the 17 goals. These will be discussed critically and interdisciplinarily with researchers and teachers from the university's Department of People & Technology, Department of Social Sciences and Business and the Department of Arts and Communications. We will have guest lectures from the University of the Andes (Colombia) and Tata Institute of Social Science (India). This document unfolds the content of the summer course: teaching formats and students, and describes the themes and focuses of the different sessions and workshops.

# FRAMING SOLUTIONS AND DRIVERS FOR CHANGE?

An interdisciplinary summer course about the UN Sustainable Development Goals in research and practice by Roskilde University and the Critical Edge Alliance. August 19-30, 2019

### AIM OF COURSE

This course will enable participants to acquire research-based and practical knowledge about the UN Sustainable Development Goals (SDGs) and how these goals could be worked with in practice as frameworks and drivers for change, social innovation and sustainability. This course will introduce the interdisciplinary, critical and problemoriented perspectives and ways of working. The course is a Master-level one and will give 5 ECTS.

### **TEACHING FORMATS**

This is a 2 week summer course that provides participants with diverse and research-based approaches and perspectives on the UN Sustainable Development Goals. Therefore researchers from RUCs different departments are invited to participate, and the course has been designed to include different formats: sessions, workshops and field-visits.

### Sessions

This format is research-based sessions that takes place over around 2,5 hours that include lectures, debate-space and potentially an exercise. The sessions are developed and arranged by the responsible appointed session lecturer. Ideally *the lecture* would introduce a specific theme and subject in relation to specific goal(s). This could be done by presenting a narrative about the relation between the researchers' field of research and the goals, then present the theoretical relations of and to the subject, and then followed by unfolding the specific concepts and questions in relation to an empirical case or project. There should be 2-3 key readings (maximum 60-85 pages). Lectures will be provided with a link to the Moodle-room and shall upload the material themselves.

After the lecture the course participants could be given an exercise that could lead to a debate-space to discuss and question the specific session theme and concern. With debate-space, I mean a space curated for the students to reflect and discuss specific concepts, questions, and specific SDGs. This should not be a situation where the teacher asks the students 'do you have any questions'. Rather, the debate-space is about curating and nurturing the space and courage for the students reflect and discuss. The debate-space is important as this course is also a CEA-collaboration and we must practice the mantra about student-centered learning and critical thinking.

### Workshops

The ideals from the Critical Edge Alliance shall be manifested in these workshops and is centered around a focus upon student-centered learning, critical thinking, interdisciplinary teaching and research, and social engagement. The workshops will be led and hosted by the course host, the Centre for Research on Problem-oriented Project Learning (RUC-PPL) and the RUC FabLab. The workshops are about introducing the students to the problem-oriented methods and thinking at RUC. Due to the limited time-span, the sessions will be centered around a specific theme and questions for the students to work with. The themes are appointed in relation to the sessions, but are considered

independent from the sessions. Different workshops will have different outcomes and will be part of the testing. The students have to hand in three written products and participate in one oral group presentation, and the workshops are designed to involve this.

### Field visit

We find it essential for the participants to experience practical examples of the SDGs, and have arranged a full day field visit to Guldborgsund Kommune.

### **Critical Edge Alliance Lectures (CEA lectures)**

We having two researchers from our CEA network: German Perez from Universidad de Los Andes (Colombia) and P. E. Shajahan from Tata Institute of Social Sciences (India). The two sessions will include a lecture by the two research followed by debate-space co-organized with the course host and a Q&A between the lecturer and the participants, moderated by the course host. These two sessions will also be announced and open for other researchers and students at RUC.

### Critical Edge Alliance panel-debate

The Critical Edge Alliance is planning and hosting a panel debate in Copenhagen with among others former President of the UN General Assembly, Mogens Lykketoft. The panel-debate is an add-on to the summer course and will be public. Rikke Nöhrlind is responsible for this.

### DETAILED DESCRIPTION OF ACTIVITIES

In this section each session is outlined thematically; what questions are raised and aspects addressed. The texts are composed after conversations with lecturers and are confirmed by the lecturers.

### The 17 UN Sustainable Development Goals

Within the two weeks we are not able to account with each goal.

We are addressing the following goals that are marked in Italic and lectures will be connecting and combining different goals:

- 1. No poverty
- Zero hunger
- 3. Good health and wellbeing
- 4. Quality education
- Gender equality
- 6. Clean water and sanitation
- Affordable and clean energy
- 8. Decent work and economic growth
- 9. Industri, innovation & infrastructure

- 10. Reduced inequality
- Sustainable cities and communities
   Responsible production and consumption
- 13. Climate action
- 14. Life below water
- 15. Life on land
- 16. Peace, justice and institutions
- 17. Partnerships for the goals

Date, time, room, SDG and format	Activity theme and description
WEEK 1	
August 19th, from 9-11 in room 02.1- 095	Welcome 9:30 Arrival, coffee, tea, fruit and croissants
	10:00 Hanne Leth Andersen (Rector) welcomes: She will introduce Roskilde University, its significant research and teaching focus on real world problems, and why we shall bring attention to the SDGs.

10:20 Welcome by Kasper Risbjerg Eskildsen, Chair of The Critical Edge Alliance: About the CEA and RUC collaboration, and why such a relation is fruitful and inspiring, and why rethinking universities such as the ones in the CEA is a much needed practice. 10:40 Short welcome and presenting the weeks program by course hosts professor John Andersen, IMT and Rikke Nöhrlind, Special Advisor - CEA. 10:50 Break Getting to know each other by course host This session will introduce the UN 2030 Agenda for Sustainable Development August 19thm 1) Participants stand in two lines facing each other and interviewing each other in rounds of 6 11-12 in room minutes, until everyone have interviewed each other. They shall respond to name, education 02.1-095 and interest. (30 minutes max) In groups talk about - your significant interest and ambition with the SDGs. 12-13 Lunch **Introducing the UN Sustainable Development Goals** by Thorkil Casse and Paul Austin Stacey (ISE) August 19th, This session will introduce the UN 2030 Agenda for Sustainable Development and the ideas for from 13-15:30 developing the SDG's and their potential of realisation in the light of international development. The in room 02.1session will introduce the goals and their connectedness, and their contextualisation within the UN and 095 global politics and institutions. The session will also critically discuss the ambiguities for application and monitoring progress and impact, and question why do we need the SDGs? This opening lecture will **Overall SDGs** seek to create a common language about the SDGs and their potentials and implications from which the course participants might begin working from. Session Literature To be announed A global governance perspective on the SDGs by Sevasti Chatzopoulou (ISE) Globalization of political, economic, and social relations challenge the functional role of the nationstate as the main reference point in global policy. This lecture will focus on governance theories and how they help us analyse the various sustainability goals. In order to understand and explain the interactions of actors and institutions in the interdependent world in the effort to find sustainable solutions to the emerging acute problems such as the environment, social cohesion and economic growth, there is a need for new theoretical and methodological tools. August 20th, Literature from 9:30-Sahlin Kerstin (2016) International relations theory, From International Relations to 12:00 Transnational Governance, Ch. 9 in Christopher Ansell, and Jacob Torfing (eds), Handbook on in room 02.1-Theories of Governance Edward Elgar Publishing, pp. 126-135 (9). 095 Kütting Gabriela and Philip Cerny (2015) Rethinking Global Environmental Policy: From Global Governance to Transnational Neopluralism, Public Administration, 93(4), pp. 907–921(14). SDG no. 12 Ponte, S., & Daugbjerg, C. (2015). Biofuel Sustainability and the Formation of Transnational and 17. Hybrid Governance. Environmental Politics, 24(1), 96-114. DOI: 10.1080/09644016.2014.954776 (18) Session Marcos Orellana (2016) Governance and the Sustainable Development Goals: The Increasing Relevance of Access Rights in Principle 10 of the Rio Declaration, Review of European, Comparative and International Environmental Law, 25:1, pp 50-58 (8) Bernauer Thomas and Lena Maria Schaffer (2012) Climate Change Governance in Levi Faur David (ed.) Oxford Handbook of Governance, Oxford University Press, pp. 441-454 (13) B. Guy Peters and Jon Pierre (2014), Food Policy as a Wicked Problem: Contending with Multiple Demands and Actors. World Food Policy 1:2-9. Alexandra Jurgilevich, Traci Birge, Johanna Kentala-Lehtonen, Kaisa Korhonen-Kurki, Janna Pietikäinen, Laura Saikku and Hanna Schösler (2016) Transition towards Circular Economy in the Food System, Sustainability, 8, 69; doi:10.3390/su8010069

12-13	Lunch
August 20th, from 13-15:30 in room 02.1- 095 Overall SDGs Lecture and workshop	Interdisciplinary and Problem-oriented education and research by Simon Warren (EAE)  This lecture and workshop will introduce Roskilde University's pedagogical approach of Problem-oriented Project Learning (PPL), its history, its underlying philosophy, and methods. The lecture will focus specifically on how students work collaboratively to formulate real-world problems around which they organize their interdisciplinary inquiries. The concept of global learning is introduced as a way of articulating PPL more closely to the existential issues facing us, and therefore the SDGs. The lecture concludes by outlining some practical implications of this approach that includes orienting PPL projects and courses to a more solidarisitic relation to the majority world that can question the growth logic of Northern economies and the dominance of Northern epistemologies. During the workshop following the lecture, participants will be challenged to formulate one or two good research questions and write a 1/2 page problem-field leading to the question(s). These group papers shall be sent to the course host -they will not be graded.  Literature:  • Chapter 2, Andersen, A. S., & Heilesen, S. B. (Eds.). (2014). The roskilde model: Problem-oriented learning and project work. Retrieved from http://ebookcentral.proquest.com/http://ebookcentral.proquest.com/lib/kbdk/detail.action? docID=1968054)  • Shultz L. (2018) Global Citizenship and Equity: Cracking the Code and Finding Decolonial Possibility. In: Davies I. et al. (eds) The Palgrave Handbook of Global Citizenship and Education. Palgrave Macmillan, London (https://link-springer-com.ep.fjernadgang.kb.dk/chapter/10.1057%2F978-1-137-59733-5 16#citeas)
August 21st, 9:00-11:30 in room 02.1- 095	Co-creation and civic participation by Martin S. Frandsen and Majken Toftager Larsen (IMT)  Significant for the realisation of the SDGs is co-creation and civic participation. This session will present two cases of experimental and hands on co-creation and community development in two small urban communities in the periphery of Greater Copenhagen. Through the case studies the session will discuss the potentials and challenges of citizen-led co-creation seen in relation to sustainable development goals.  Literature:  Cornwall, A., 2004, "New Democratic Spaces? The Politics and Dynamics of Institutionalised Participation", IDS Bulletin, Vol. 35, No. 2, pp. 1-10.  Cornwall, A. & Coelho, V. S. P., 2007, "Spaces for Change? The Politics of Participation in New Democratic Arenas", In: Cornwall, A. & Coelho, V. S. P. (eds), Spaces For Change? The Politics of Citizen Participation in New Democratic Arenas. Zed Books, London, (2007) 1-29.pp. 1-29.  Frandsen, M. S. & Petersen, L. P., 2014, "Urban Co-creation". In J. Simonsen et al. (eds), Situated Design Methods, MIT Press, pp. 181-199.
11:30-12:00	Lunch
August 21st, 12:00-14:30 in room 02.1- 095	Partnerships and co-creation for implementing the SDGs by Oda Bagøien Hustad og Jannik Egelund (ISE)  Partnerships is a Sustainable Development Goal in itself as described in SDG number 17, but the UN also stresses multi-stakeholder partnerships between the public, private and civil society sector as one out of five building blocks to reach the 16 other goals. In many municipalities in Denmark, co-creation partnerships are emerging as a strategy for partnerships and involvement of the local community. The first part of the lecture will present co-creation as an approach to implement and translate the SDGs and present some cases on how Danish municipalities work with the SDGs. The second part of the lecture will discuss multi-stakeholder partnerships across sectors as an implementation mechanism for the SDGs. This session will particularly focus on a private sector involvement in such partnerships and discuss the possibilities and limitations of private sector contributions to the SDGs.  Literature:  • Torfing, J., Sørensen, E. & Røiseland, A. (2019). "Transforming the Public Sector Into an Arena for Co-Creation: Barriers, Drivers, Benefits, and Ways Forward". In Administration & Society, Vol. 51(5), p. 795–825.  • Scheyvens, R., Banks, G. & Hughes, E. (2016). "The Private Sector and the SDGs: The Need to Move Beyond 'Business as Usual'". In Sustainable Development, Vol. 24, p. 371–382.

Beisheim, M. & Simon, N. (2016). "Multi-Stakeholder Partnerships for Implementing the 2030 Agenda: Improving Transparency and Accountability". Analytical Paper for the 2016 ECOSOC Partnership Forum. Can be retrieved from: https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/2016doc/partnershipforum-beisheim-simon.pdf **Public Panel debate** Public debate on the UN Sustainable Development Goals as Drivers for Change organized by Roskilde University and the Critical Edge Alliance (CEA) in cooperation with BLOXHUB. Debate on key global challenges including climate change and loss of biodiversity; sustainability and August 21st, In-equality. High-level experts debate experiences, critical edge research and good practices on the UN 16-18 in SDGs as a framework for solutions. Panelists include Mogens Lykketoft, former President of the UN General Assembly, German Perez (University of the Andes), P.K. Shajahan (TISS), Thomas Budde Copenhagen Christensen (RUC), Stine Junge (UNDP Nordic Office) and Rasmus Stuhr Jakobsen (Chair, Global Focus -Danish Associations for CSOs). Venue: BloxHub, Fæstningens Materialgård, Frederikholms Kanal 30, Indgang A6 **Event Room: Los Angeles** Migrant workers: inequality and poverty by Kristine Juul (IMT) Migration, poverty and inequality are central issues that the SDGs seek to address. The relationship between the three notions is however full of paradoxes and ambiguities. According to classic theories of push and pull, migration commonly takes place because of push factor of less opportunities in the August 22nd, area of departure combined with pull factors that exist in more developed areas. In the long run, 9:30-12:00 in migration is therefore likely to even out inequalities and often leading to situations of semi-legality. In room 02.1this lecture, findings from field studies among migrants of West African origin, previously employed in 095 the horticultural sectors of Spain or Italy but currently surviving as bottle collectors in the Nordic capitals, will act as a backdrop for discussing what theoretical approaches and concepts are most apt SDGs: 8, 10 for understanding the moral and material economies lying behind the new types of hypermobile and 11 lifestyles which are developing among some of the poorest segments of the European workforce. Thereby the session also critically reflects upon potentials of the SDGs. Session Literature: To be announced 11:30-12:00 Lunch Sustainable Development Goals. Building a Latin-American perspective on research, incidence and education. German Ignacio Andrade Perez, Los Andes University (Colombia) **Topics:** General presentation of Sustainable Development Centre for Latin America and the Caribbean (CODS). Origin. Aims and Scope of intervention from a research academic network. August 22nd, Who we are? Our current and potential partners. 13-15:30 in Challenges of sustainable development (SD) in Latin America. room 02.1-Conceptual framework for addressing synergies and tensions between SDGs in the 095 Our message: SD within ecological limits in the region. Land use change, agriculture and urban expansion. Deforestation and wetland loss. Biodiversity and climate change in the **CEA lecture** region challenge SD goals). The regional and Global IPBES assessments. and SDG and poverty. The challenge of an emerging huge media class. discussion Actors involved in the SDG agenda to be fostered from the CODS Discussion: Perspectives of cooperation with the CEA.

Literature:

To be announced **Q&A Discussion** This is a space for reflection and debate, and the host will curate a discussion between the lecture and the students. The questions should relate to both the content of the course, the SDGs and the keyconcerns of the Critical Edge Alliance contextualised in the specific lecture. Workshop #2: Critical thinking and student-centered learning In groups the students continue their work on specifying their field of research from the first workshop. August 23rd, The outcome of the first workshop will be considered as one delivery. The outcome of this workshop is 9:30-12 in a continuation of that delivery, but specifying the field of research and writing a section about how and room 02.1why their perspective has changed = a reflection on learning outcomes and critical nuancing. The 095 workshop will first introduce this thinking by the course host (10 minutes) and then there will be enough time (at least 1,5 hour) for the students to work. The workshop shall end with a discussion in plenum about their current reflection on learning and the SDGs. 11:30-12:00 Lunch Communities, Identities and Inequalities: Integrating actions for sustaining transformation inequality by P. K. Shajahan, Tata Institute of Social Sciences (India) Communities are at critical crossroads across the Globe. In a technology and market-driven process of development, the expanse of the marginalised and deprived sections of communities has increased. Those who have been historically disadvantaged, dispossessed of land, lack appropriate skills, quality education and/or other resources, are not able to benefit from the fruits of "progress" and "development" which a country or region may have. Thus it could be seen that more than half of the SDGs are critically linked to each other with poverty and inequality (including gender inequality) playing significant role in pushing more and more people into situations of hunger, poor health and education, not having safe and clean drinking August 23rd, water and sanitation etc. Scholars in the development sector have established that there is no automatic 13-15:30 in trade-off between growth and equality. UNESCAP Report (2015) titled "Time for Equality: The Role of room 02.1-Social Protection in Reducing Inequalities in the Asia and Pacific" argues that inequalities undermine 095 human dignity and social justice. Thus, the motto of "leaving no one behind" becomes achievable only if actions are tailored to address the multiple marginalities of communities, nations and regions emanating from poverty and inequality in an integrated fashion and not as exclusive actions aimed at achieving the **CEA Lecture** targets under specific goals. The session will critically examine the need for establishing integral link across and actions that lead to achieving Global Agenda 2030 through local engagements. discussion Literature: To be announced **Q&A Discussion** This is a space for reflection and debate, and the host will curate a discussion between the lecture and the students. The questions should relate to both the content of the course, the SDGs and the keyconcerns of the Critical Edge Alliance contextualised in the specific lecture. WEEK 2 Future Farming - Multifunctionality and urgent need for socio-technical transitions by Henrik August 26th, Haugaard-Nielsen (IMT) 9:30-12:00 in Many farmers inherit the agricultural land and practice through generations. Their profession is the room 03.1.dominating frame around their private lives. Consequently, agricultural production involves many **S03** emotions for both farmers and consumers leading to an often intense public debate about the development of the agricultural sector. This session will discuss primarily SDG 12 and 15 from the SDGs: 12 and perspective of future farming strategies embedded in not only food productivity (intensification) 15 including several other key functions and services potentially provided by this sector - like climate change mitigation, natural resource management, landscape quality linked to biodiversity, and rural

development. An important discussion point is how to stimulate shift in current agriculture (traditions, rules, norms) towards the objective of combining economic, environmental and social sustainable

Session

### development.

### Literature:

- Francis, C. A.; Jensen, E.S.; Lieblein, G.; Breland, T. A. (2017): Agroecologist Education for Sustainable Development of Farming and Food Systems. Agronomy Journal Vol 109, Issue 1, pages 23-32.
- Alteri, M. A. (2004): Linking ecologists and traditional farmers in the search for sustainable agriculture. Front Ecol Environ 2(1): 25-42.
- Berkes, F., Colding, J., & Folke, C. (2002), Introduction, In F. Berkes, J. Colding, & C. Folke (Eds.), Navigating Social-Ecological Systems: Building Resilience for Complexity and Change (pp. 1-30). Cambridge: Cambridge University Press.
- Gonzalez, R. A., Thomas, J., & Chang, M. (2018). Translating agroecology into policy: The case of France and the United Kingdom. Sustainability (Switzerland), 10(8).

### 11:30-12:00

### Lunch

### Communicating the SDGs by Sine Nørholm Just (IKH)

### August 26th, 9:30-12:00 in room 03.1.-**S03**

This session will discuss the SDGs from a point of view of strategic communication and reflect on the tensions and ambiguities between intentions and realities. The lecture questions how SDG initiatives avoid becoming yet another form of responsibility-'washing' and superficial CSR communication, and how they could become part of a growing momentum for global change towards social and environmental responsibility. In the session we will discuss corporate communicative activation of the SDGs as a whole and through initiatives focusing on one (or a few) of the goals.

### Literature:

SDGs: all Session

- Christensen, L. T., Morsing, M. & Thyssen, O. (2013): CSR as aspirational talk. Organization, 20(3): 372-393.
- López, B. & Monfort, A. (2017): Creating shared value in the context of sustainability: The communication strategy of MNCs. In: Emeagwali, L. (ed): Corporate Governance and Strategic Decision Making. Available at: https://www.intechopen.com/books/corporate-governanceand-strategic-decision-making/creating-shared-value-in-the-context-of-sustainability-thecommunication-strategy-of-mncs.

## August 27th, 8-17 (including transport) / 10-15 in Guldborgssun

### **Field visit**

SDGs: 11, 13 and 17

d)

Guldborgssund Municipality has invited us for a full-day programme. The day will hold a broader introduction to the municipality and Lolland by the mayor, its challenges and projects, and a talk about their work and approach to sustainable development and the SDGs. We will be given a guided tour and we will move the to area Lindholm (an area presented on the Governments so-called Ghetto-list) that has been strategically appointed to be redeveloped into a sustainable neighbourhood. We will hear a talk about the plans and methods for Lindholm, and move around the area. Lunch will be consumed at one of the community kitchens serving local (and organic if possible) food.

### Field visit

### The great acceleration: Algorithms, Robots and the Financialization of Climate Adaption by Thomas Schou Grindsted (IMT)

August 28th, 9:30-12:00 in room 03.1.-**S03** 

SDGs: 12

Session

This lecture interrogate with SDG 12 and the promise and hazards of new financial technologies to sustainable finance. First, the lecture introduces a concept note for thinking about circular economy. Then, the lecture interrogate with the Anthropocene and the great Acceleration debate and emphasize concepts of temporality, materiality and circularity in addressing the SDG 12 on production and consumption systems. The principles of cleaner production also outlaid. The second part of the lecture is devoted to circular economy and environmental financialization. We draw on cases from the fintech industry, algorithms and robots. We particularly addresses the temporality of CE, and how new algorithmic economies produce divergence and convergence to the climate system. You should especially be aware of 1) the acceleration employed 2) convergence and divergence to the principles of cleaner production outlaid in the beginning of the lecture. Considering the complex links between the different SDGs, the lecture furthermore highlights the goals' interactions and interdependencies. In so doing, it suggests climate governance of techno-finance crucial to stipulate toward any circular economic model of production and consumption.

# Literature: Andreas Malm, and Alf Hornborg (2014). The geology of mankind? A critique of the Anthropocene narrative, The Anthropocene Review, Vol. 1, 62-69. Doi: 10.1177/2053019613516291 Thomas Skou Grindsted (2018). Algorithms and the Anthropocene - Finance, Sustainability, and the Promise and Hazards of New Financial Technologies. The Global Network on Financial Geography, School of Geography and the Environment, Oxford University. Working paper #16, 1-21. http://www.fingeo.net/fingeo-working-paper-series/ Will Steffen, Jacques Grinevald, Paul Crutzen and John McNeill (2007). The Anthropocene: conceptual and historical perspectives, Royal Society, Philosophical Transactions: Mathematical, Physical and Engineering Sciences Vol. 369, 842-867. https://www.jstor.org/stable/41061703?seq=1#page scan tab contents Will Steffen, Windy Broadgate, Lisa Deutsch (2015). The trajectory of the Anthropocene: The Great Acceleration, Anthropocene Review, Vol. 2 (1), 81-98. https://doi.org/10.1177/2053019614564785 11:30-12:00 Lunch August 28th, Workshop #3: Social engagement and interdisciplinary 13-15:30 in The students have to continue their writing from the first two workshops, and this specific workshop room 03.1.should focus on their reflections about interdisciplinarity and social engagement. Significantly from **S03** their field visit. Again the course host will frame the workshop (10 minutes) and give the student 2 hours for writing and reflection. Then finally follow up with a discussion in plenum (20 minutes). Workshop Environmental Economics - environmental and social investments and impacts by David Possen (KU) The UN has declared that realizing the SDGs will be an expensive undertaking, with an estimated price tag of \$5 to \$7 trillion annually; but the cost of failing to achieve them would be far higher. In this session, we will explore the field of environmental economics, which generates and validates claims like these. Environmental economics supports sustainability strategy by providing methods for measuring costs and benefits that markets normally ignore, especially future social and environmental harms or gains. Other environmental economics tools can be used to evaluate and compare public policies designed to address these "hidden" costs and benefits. Following a lecture on the field and its methods, we will have a chance to apply them concretely ourselves in an interactive workshop focused on the island of Lolland (which we will have visited earlier in the week) and the future of its cities, coastline, August 29th, population, and flora and fauna in the wake of climate change.\* 9:30-12:00 in room 03.1.-\*To make this activity as accessible as possible, we will restrict ourselves to a simple model involving very little math **S03** (just a bit of algebra and geometry). Session Literature: Edward B. Barbier and Joanne C. Burgess, "The sustainable development goals and the systems approach to sustainability," Economics: The Open-Access, Open-Assessment E-Journal 11 (2017) 28: 1-23. Sandra Díaz et al., "Assessing nature's contributions to people," Science 359 (2018) 6373: 270-272 + online supplementary materials at https://science.sciencemag.org/content/sci/suppl/2018/01/18/359.6373.270.DC1/aap8826-Tom Tietenberg and Lynne Lewis, "Evaluating Trade-Offs: Benefit-Cost Analysis and Other Decision-Making Metrics," Chapter 3 in Environmental and Natural Resource Economics, 11th ed. (New York: Routledge, 2017), pp. 45-72. 11:30-12:00 Lunch August 29th, 13-15:30 in Workshop #4: Fablab **FabLAB** Workshop

August 30th, 9:30-15:30

Workshop

### Workshop #5: Student-centered learning

Through this day the students shall finish their paper and put emphasis on their learning output from the week, and how they consider the work with the SDGs, and include their experiences from the FabLab in these critical reflections. Also the students have to prepare an oral presentation for the afternoon. So, in the morning they will work with these, and after lunch there is presentation time.

**Disclaimer:** Please note, that this is a document in progress. Some titles may change and literature be replaced etc. This document only serves the purpose of proving an overview of the course; content and form.