Course title: Circular Economy
Language of instruction: English
Professor: Lela Mélon
Professor's contact and office hours: upon agreement
Course contact hours: 45
Recommended credit: 6 ECTS credits
Course prerequisites: There are no specific prerequisites for this course, just a genuine interest in sustainability and being briefly familiarized with the UN Agenda 2030 Sustainable Development Goals.

Language requirements: English level B2

Course focus and approach: this is a course that focuses on regenerative approach to the environmental sustainability in the framework of circular economy and circular practices in diverse social settings, framing the notions of sustainable consumption and production.

Course description: The course is devoted to delivering the knowledge on the pertinent issues of sustainable development through the prism of the use of circular economy principles. Understanding the concept of a circular economy demands the understanding as to how a circular economy deviates from the current linear system, being able to analyze and develop complex circular systems using a systems-thinking approach, assessing the use of Life Cycle Assessment and Agent Based Modelling. The course also teaches how to formulate improvements for a transition towards a circular design and the students learn how to use and apply complexity aspects and agent-based modelling. The concept of circular economy will be applied through policy considerations, legal aspects, economic and practical implications.

Learning objectives: At the end of the course, the students will be able to understand in great detail, the concept of sustainable circular economy, its broader implications and legal and policy requirements for enacting changes to the existing linear practices for achieving the UN Sustainable Development Goals**.**

Course workload: The course will develop along a full term, with twenty-one (21) two-hour sessions. Each of them will consist of a lecture by the professor, a discussion about the required readings, and in some cases additional activities addressed to specific issues of the course. Depending on the nature of such activities, active participation of students will be required. Readings for each session are compulsory as a basis for discussion, without exception. A close approximation to the Problem Based Learning method.

Teaching methodology: focus of the class will be on thorough understanding of the theoretical concepts as applied in practice through problem-based learning.

Assessment criteria:
Apart from lectures, course activities will imply course and reading assignments, as well as active participation by students. The evaluation of the course will combine continuous assessment and a final examination, according to the following criteria:

Midterm: 40%
Course assignments: 20%
Final exam: 40%

It is possible to obtain additional 10% from outstanding active in-class participation.

Retaking conditions:
For students failing the course after the final examination, it will be possible to retake the exam while grades for course assignments and class participation are maintained.

Possible confinement cases
In cases of possible COVID19-related confinements of less than 3 students, the course assignments part shall be replaced with a critical summary of the class topic (the base materials will be provided by the professor) and a recording of a short presentation of the materials provided, that will replace in-class participation.

BaPIS absence policy
Attending class is mandatory and will be monitored daily by professors. Missing classes will impact on the student's final grade as follows:

Absences	**Penalization**
Up to two (2) absences	No penalization
Three (3) absences	1 point subtracted from final grade (on a 10-point scale)
Four (4) absences	2 points subtracted from final grade (on a 10-point scale)
Five (5) absences or more	The student receives an INCOMPLETE ("NO PRESENTADO") for the course

The BaPIS attendance policy **does not distinguish between justified or unjustified absences**. The student is deemed responsible to manage his/her absences.

Only absences for medical reasons will be considered justified absences. The student is deemed responsible to provide the necessary documentation. Other emergency situations will be analyzed on a case by case basis by the Academic Director of the BaPIS.

The Instructor, the Academic Director and the Study Abroad Office should be informed by email without any delay.

Classroom norms:

- No food or drink is permitted in class.
- Students will have a ten-minute break after one one-hour session.
- Active class participation is mandatory

Weekly schedule

SESSIONS 1-4: The pitfalls of linear economy and the traditional business models

- The course description
- Syllabus, assessment and readings
- Introduction to the course requirements and methods of assessment
- Exploring the depth and the meaning of the term "linear economy," its origins and its adaptations through time
- Understanding the distinction between sustainability and regenerative practices
- Shareholder primacy and short-termism of financial markets and the need for adaptation to circular principles.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class.

1. Steffen et. al. (2015), 'Planetary boundaries: Guiding human development on a changing planet'

2. Mélon, L. (2019), Ch.3 'Future Developments: How Can Corporate Law Contribute to Sustainable Development? The Notion of the "Sustainable Company' in Shareholder Primacy and Global Business (Routledge 2019).
3. Pavoni, R. and Pisell, D. (2016) 'The Sustainable Development Goals and International Environmental Law: Normative Value and Challenges for Implementation.' Veredas do Direito 13:26.
4. The Principles of International Law Related to Sustainable Development (the text will be provided to the students)
5. Millon, D. (2013) 'Radical Shareholder Primacy' 10:4 University of St. Thomas Law Journal.
6. Sjåfjell, B. (2015) 'Shareholder Primacy: The Main Barrier to Sustainable Companies' in Company Law and Sustainability: Legal Barriers and Opportunities Sjåfjell B. and Richardson B. (eds), Cambridge University Press, 2015.
7. Ajibo, Collins C. (2014) "A critique of enlightened shareholder value: Revisiting the shareholder primacy theory". In Birkbeck Law Review 2:1, pp.37–58.
8. Mélon, L. (2019) Ch.2 'The Incompleteness of Modern Corporate Laws' in Mélon, L. Shareholder Primacy and Global Business (Routledge 2019).

SESSIONS 4-7: Defining and correctly positioning the notion of circular economy

- Studying the need for the implementation of circular economy principles
- Defining circular economy and identifying the pitfalls of its application in a 'business-as-usual' scenario
- Embedding the emerging concepts under the umbrella framework of sustainability.
- Discussing instances where circular economy is not sustainable.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class.

1. Ghisellini, P., Cialani, C., Ulgiati, S. 'A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems 2016 Journal of Cleaner Production 114, pp. 11-32.
2. Geissdoerfer, M., Savaget, P., Bocken, N.M.P., Hultink, E.J. 'The Circular Economy – A new sustainability paradigm?' 2017 Journal of Cleaner Production 143, pp. 757-768.
3. Murray, A., Skene, K., Haynes, K. 'The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context' 2017 Journal of Business Ethics 140(3), pp. 369-380.
4. Korhonen, J., Honkasalo, A., Seppälä, J. 'Circular Economy: The Concept and its Limitations' 2018 Ecological Economics 143, pp. 37-46.
5. Maitre-Ekern E., Taylor M.B., Van der Velden M. (2020) 'Towards a Sustainable Circular Economy: SMART reform proposals' University of Oslo Faculty of Law Legal Studies Research Paper Series No. 2020-12.

SESSIONS 8 and 9: Financing Circular Economy

- The role of finance in business and (sustainable) innovation
- The definition of sustainable finance
- Relevant developments in the EU regarding sustainable finance
- Recognising the importance of adaptation of financial systems to the characteristics of circular economy
- Analysing the current pitfalls, suggesting contractual remedies to adapt the old traditional linear system of financing to the new demands of circular economy.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class.

1. Cherednychenko O.O. EU Financial Regulation, Contract Law and Sustainable Consumer Finance in Van Schagen E. and Weatherill S. (Eds.), Better regulation in EU contract law: the fitness check and the new deal for consumers (Hart Publishing 2019), pp. 61-91;
2. Ulfbeck V. and Hansen O. (2020) "Sustainability Clauses in an unsustainable Contract Law?" 16:1 European Review of Contract Law, pp.186-205.
3. See OECD (2020), Developing Sustainable Finance Definitions and Taxonomies, Green Finance and Investment, OECD Publishing, Paris, https://doi.org/10.1787/134a2dbe-en.
4. Migliorelli M. (2021) "What Do We Mean by Sustainable Finance? Assessing Existing Frameworks and Policy Risks" 13 Sustainability, pp.975-992.
5. UNEP (2020) Demystifying finance for circular economy.

SESSION 10: Midterm (group project presentation)

SESSIONS 11-13: Life Cycle Assessment Method

- Defining Life Cycle Assessment Method
- Understanding LCA synonyms, goals and purpose
- Discussing LCA goals and scope, inventory, impact assessment and interpretation.
- On the LCA uses and data analysis.
- Presenting variants to the LCA (cradle-to-grave, cradle-to-gate, etc.)
- Life cycle energy analysis and critiques.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class

1. Guinée J. et al. (2011) 'Life Cycle Assessment: Past, Present, and Future' 45(1) Environment, Science and Technology. pp.90–96.
2. Albertí J., Balaguera A., Brodhag C., Fullana-i-Palmer P. (2017) 'Towards life cycle sustainability assessment of cities. A review of background knowledge.' 609 *Science of the Total Environment*, pp.1049-1063.
3. McCarthy D, Matopoulos A and Davies P. (2015) 'Life cycle assessment in the food supply chain: a case study.' 18 International Journal of Logistics Research and Applications, pp.140–154.
4. Farah Hanun R.S. et al. (2019) 'Life-Cycle Assessment (LCA) of Plastic Bag: Current Status of Product Impact.' 28 (18) International Journal of Advanced Science and Technology, pp.94-101.

SESSIONS 14 and 15: EU Legislation on Circular Economy

- The analysis of Final Circular Economy Package issued by the EU in 2019, also from a policy coherence perspective.
- Studying the boundaries and pitfalls of the Circular Economy Action Plan.
- Analyzing adjacent EU policy and legal frameworks.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class.

1. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS The European Green Deal COM/2019/640 final.
2. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final.
3. REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on the implementation of the Circular Economy Action Plan COM/2019/190 final.

SESSION 16: International organisations on Circular Economy

- NGOs as accelerating factors for a mass deployment of circular economy.
- Ellen MacArthur foundation.
- European Circular Economy Stakeholder Platform.
- The materials issued by NGOs.

Reading and class discussion: suggested readings, the important summaries will be provided by the professor a week before each class.

1. Ellen MacArthur Foundation (2020) Financing the circular economy: Capturing the opportunity.
2. Ellen MacArthur Foundation (2021) Universal circular economy policy goals: enabling the transition to scale.

SESSION 17-19: Future prospects

- Studying the concepts presented in the previous sessions in the light of possible future developments.
- Application of the existing rules to the current business reality and vice versa: which market realities would need further legislative intervention?
- Practical discussions, case law analysis and analysis of proposals of the EU Commission and the EU Parliament on the matter.

Reading and class discussion: TBA following the newest developments
SESSIONS 20 and 21: Recap and exam preparation

Last revision: May 2022.

Required readings:

1. Steffen et. al. (2015), 'Planetary boundaries: Guiding human development on a changing planet'
2. Mélon, L. (2019), Ch.3 'Future Developments: How Can Corporate Law Contribute to Sustainable Development? The Notion of the "Sustainable Company' in Shareholder Primacy and Global Business (Routledge 2019)
3. Sjåfjell, B. (2015) 'Shareholder Primacy: The Main Barrier to Sustainable Companies' in Company Law and Sustainability: Legal Barriers and Opportunities Sjåfjell B. and Richardson B. (eds), Cambridge University Press, 2015.
4. Ghisellini, P., Cialani, C., Ulgiati, S.(2016) 'A review on circular economy: The expected transition to a balanced interplay of environmental and economic systems.' 114 Journal of Cleaner Production, pp. 11-32.
5. Geissdoerfer, M., Savaget, P., Bocken, N.M.P., Hultink, E.J. (2017) 'The Circular Economy – A new sustainability paradigm?' 143 Journal of Cleaner Production, pp. 757-768.
6. Maitre-Ekern E., Taylor M.B., Van der Velden M. (2020) 'Towards a Sustainable Circular Economy: SMART reform proposals' University of Oslo Faculty of Law Legal Studies Research Paper Series No. 2020-12.
7. UNEP (2020) Demystifying finance for circular economy.
8. Guinée J. et al. (2011) 'Life Cycle Assessment: Past, Present, and Future' 45(1) Environment, Science and Technology. pp.90–96.
9. Albertí J., Balaguera A., Brodhag C., Fullana-i-Palmer P. (2017) 'Towards life cycle sustainability assessment of cities. A review of background knowledge.' 609 *Science of the Total Environment*, pp.1049-1063.
10. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final.
11. REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on the implementation of the Circular Economy Action Plan COM/2019/190 final.
12. Ellen MacArthur Foundation (2021) Universal circular economy policy goals: enabling the transition to scale.

Recommended bibliography:

1. HICKEL, Jason. 2021. Less is More: How Degrowth Will Save the World. London. Windmill Books.
2. BRAUNGART Michael and McDONOUGH William. 2009. Cradle to Cradle (Patterns of the Planet). London. Vintage.
3. LACY Peter, LONG Jessica, SPINDLER Wesley. 2020. The Circular Economy Handbook: Realizing the Circular Advantage. London. Palgrave Macmillan.
4. BRAUNGART Michael and McDONOUGH William. 2013. The Upcycle: Beyond Sustainability-Designing for Abundance. London. NORTH POINT PR
5. WEETMAN, Catherine. 2016. A Circular Economy Handbook for Business and Supply Chains: Repair, Remake, Redesign, Rethink. London. Kogan Page.