

## Course Syllabus - Circular Economy

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**Language of Instruction:** English

**Professor:** Lela Mélon

**Professor's Contact and Office Hours:** upon previous agreement

**Course Contact Hours:** 30 hours

**Recommended Credit:** 4 ECTS credits

**Weeks:** 2

**Course Prerequisites:** interest in sustainable corporate behavior and circular economy

**Language Requirements:** Recommended level in the European Framework B2 (or equivalent: Cambridge Certificate if the teaching language is English, DELE or 3 semesters in the case of Spanish)

**Course structure:** Workshop

**Course classification:** Introductory

**Course Description:** this 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. 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. 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 student:

- 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
- will be able to critically assess the existing sustainable and/or circular corporate practices
- will be familiar with EU documents on the matter and the practical application of circular economy principles

### Course Workload

The course is divided into lectures, discussions and a field visit. Students should be prepared to read between 60 and 100 pages per week.

Readings for each session are compulsory as a basis for discussion, without exception. A close approximation to the Problem Based Learning method is used throughout the course.

### Methods of Instruction:

The course will develop along two weeks, with ten (10) three-hour sessions, one of which will be replaced with an on-field visit. The lectures will consist of a lecture by the professor, a discussion about the required readings, and in some cases additional activities addressed to specific challenges of circular economy. Depending on the nature of such activities, active participation of students will be required.

**Method of Assessment**

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:

- Course assignments: 20 percent
- Midterm Exam: 40 percent
- Final Exam: 40 percent

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

**Absence Policy**

Attending class is mandatory and will be monitored daily by professors. The impact of absences on the final grade is as follows:

<b>Absences</b>	<b>Penalization</b>
Up to one (1) absences	No penalization.
Two (2) absences	1 point subtracted from final grade (on a 10 point scale)
Three (3) absences	The student receives an INCOMPLETE for the course

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

Emergency situations (hospitalization, family emergency, etc.) will be analyzed on a case by case basis by the Academic Director of the UPF Barcelona International Summer School.

**Classroom Norms:**

- No food or drink is permitted.
- There will be a ten-minute break during the class.
- Students must come to class fully prepared.

**Course Contents:**

**SESSIONS 1 and 2: 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. Sjøfjell, B. (2015) 'Shareholder Primacy: The Main Barrier to Sustainable Companies' in *Company Law and Sustainability: Legal Barriers and Opportunities* Sjøfjell 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 3 and 4: 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 5 and 6: 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 7: Midterm (group project presentation)**

#### **SESSION 8: 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.

#### **SESSION 9: Field visit**

- 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.

### **SESSION 10: Final exam**

#### **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. Sjøfjell, B. (2015) 'Shareholder Primacy: The Main Barrier to Sustainable Companies' in Company Law and Sustainability: Legal Barriers and Opportunities Sjøfjell 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.

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