# MANAGING CIRCULAR ECONOMY (MNGT-C1011, 6 cr)

# SYLLABUS

| Instructors' contact information | Course information |
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1. CONTENT

The course will introduce the key models and frameworks to understand what circular economy means for the society as well as for individual organizations. It will also introduce systems thinking and sustainable development goals as tools to situate an organization in its broader societal environment.

Special focus areas of the course will include circular economy business models and strategies, collaboration for circular economy, the role of different intermediaries such as public sector organizations and NGOs in the circular economy as well the role of new technologies as enablers of circular economy. Throughout the course, understanding nature of sustainability transitions and thinking in terms of systems will be important themes.

1. PREREQUISITIES

Basic business knowledge is expected. "21E16001 Sustainability in Business", "21A00410 Yritysvastuu ja Etiikka" or similar course covering the fundamentals of responsible and sustainable business is highly recommended..

1. LEARNING OUTCOMES

Reaching the goals of sustainable development requires a fundamental shift in the way resources are used in our economic system. It requires a shift from a linear economic model where resources are used and discarded to a circular economy model, where resources and materials are reused and recycled. The circular economy refers to a model, where economic value is created through the circular use of resources. The societal transition towards circular economy has fundamental implications for businesses and other organizations.

Managing Circular Economy offers students tools and concepts to understand the transition towards circular economy, and the role of businesses and other organizations in it. Students will learn concrete methods for developing organizational capabilities for circular business, and thus benefit from the transition. This type of business requires a systemic perspective towards business, and the course will also contribute towards an improved understanding of systems thinking in business as well as understanding of business sustainability action, especially towards environmental goals.

1. ASSIGNMENTS AND GRADING

A. LEARNING DIARIES 30%

Due: End of each teaching week (6 in total)

Reflections are a critical way to make sense of what you are learning in class; it is how connections are created between topics, how you develop your views, how you link the classroom to your real-world experience, and how you develop your sense of learning. Your reflections of what you have learned for each weekly theme (in class and from the readings), will be your main individual assignment. Each learning diary should be 500-800 words in length. There are six teaching weeks in total.

Things that will help you get a good grade on your reflection:

• Rooting your reflection in-class materials, exercises, discussions and readings

• Using real-life examples to explore the complexities of the themes

• Disagreeing with the viewpoints presented in a well-reasoned way. Remember, there are multiple viewpoints to circular economy and complex sustainability issues, and you are encouraged to disagree with them if you see fit. But try to refrain from being overly argument just for the sake of criticism

• Providing clarity about where your lingering questions and doubts are. What are you unsure of? What confuses you? Of course, there is a balance here. One has to bring a viewpoint. Perhaps you are confused because two points seem contradictory. That would be an excellent topic for reflection.

We will use the following criteria for grading each weekly learning diary:

2 points (excellent)

The learning diary shows creativity and deep reflection of the weekly topic. The student recognizes what they have learned and how this connects to previous knowledge. The diary focuses on the core topic(s) discussed during the week. The text shows clearly that the student has used the readings, lectures, discussions and exercises as a basis for the learning process. The diary shows how the learning process has been enhanced (e.g. by reflection or further readings) also after the contact teaching. The diary clearly shows which are the author’s own thoughts and which are references from other sources. The structure and language is clear and the writing is easy to follow. References are used correctly

1 point (accepted)

The learnings of the weekly theme are repeated in somewhat more superficial manner and is partly focused on things which are not central for the topic. The learning process shows limited engagement and reflection outside of the direct classroom teaching and readings. The structure and language of the text are mostly fine but might have some minor issues.

0 points (rejected)

The learning diary is submitted late or does not at all fulfill the above criteria for an acceptable diary

The maximum number of points for the learning diaries is 12

B. GROUP ASSIGNMENT (40%)

The group assignment is consists of a report (3500-4500 words) written in groups of 4-5 students, focusing on circular economy business development in a case company. The students choose the company by themselves, focusing on a firm that shows some sign of circular economy development in its business. The groups can take on either a consultant -type of role, focusing on opportunities to build new circular business competencies, or a more critical role, focusing on identifying and scrutinizing a case which can be seen as misleading in circularity claims, or having limited sustainability benefits. More detailed instructions on the assignment will be provided when the course starts.

C. ATTENDANCE IN TEACHING SESSIONS (36%)

The teaching sessions consist of 1 lecture and discussion -oriented session per week and one exercise session. Due to the interactive nature of the sessions, attendance is highly encouraged and part of the course grading. Attendance in each teaching session will give the student 1 attendance point. 6 points total are required to pass the course. Maximum amount of attendance points is 12. Points exceeding 10 are considered extra credit (i.e. theoretical maximum of total course points can exceed 100 points)

Example grade calculation:

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Points** | **Weighted points** | **Course Grade** |
| Learning diaries | 9 (max 12) | 22,5 |  |
| Group assignment | 35 (max 40) | 35 |  |
| Attendance | 10 (max 12) | 30 |  |
| Total |  | 87,5 | 4 |

1. COURSE SCHEDULE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Date | Topic | Readings and  deadlines | Room |
| Week 1: The fundamentals of circular economy | | |  |  |
| 1 | 27.02.23 | Lecture – Introduction to circular economy – key concepts and drivers | Reading: **Geissdoerfer et al. 2017** | U356 (Alma Media) |
| 2 | 02.03.23 | Exercise: Guided introduction to group work | Learning diary 1 **DL 05.03** | U119 (Deloitte) |
| Week 2: Circular economy and systems thinking | | |  |  |
| 3 | 06.03.23 | Lecture: Intro to systems thinking, CE as a systemic issue | **Reading:** Sterman, 2001 | U356 (Alma Media) |
| 4 | 09.03.23 | Exercise: Systems thinking assignment | Learning diary 2 **DL 12.03** | U119 (Deloitte) |
| Week 3: Strategies and business models for circularity | | |  |  |
| 5 | 13.03.23 | Lecture: circularity strategies and business models | **Reading:** Bocken et al. 2016 | U356 (Alma Media) |
| 6 | 16.03.23 | Exercise: Circular experimentation workbench | Learning diary 3 **DL 19.03** | U119 (Deloitte) |
| Week 4: Circular economy ecosystems | | |  |  |
| 7 | 20.03.23 | Lecture: The role of collaboration for circular economy | **Reading:** Patala et al. 2022 | U356 (Alma Media) |
| 8 | 23.03.23 | Exercise: Circular collaboration canvas | Learning diary 4 **DL 26.03** | U356 (Alma Media) |
| Week 5: Circular economy and the role of new technologies | | |  |  |
| 9 | 27.03.23 | Guest lecture: Digital technologies and circular economy | Reading: Rajala et al. 2018 | U119 (Deloitte) |
| 10 | 30.03.23 | Exercise: CE and new technologies | Learning diary 5 **DL 02.04** | U356 (Alma Media) |
| Week 6: Circular economy and the society | | |  |  |
| 11 | 03.04.23 | Lecture: Circular economy and policy development, critical views of CE | **Reading:** Dzhengiz et al. 2023 | U356 (Alma Media) |
| 12 | 13.04.23 | Summary and wrap-up | Learning diary 6 **DL 16.04**  **Group Assignment DL 16.04** | U356 (Alma Media) |

1. WORKLOAD

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| --- | --- |
| Attendance in teaching sessions | 24 h |
| Preparation for teaching sessions | 24 h |
| Learning diaries | 36 h |
| Group work | 76 h |
| Total | 1. (6 cr) |

1. READING LIST

Bocken, N.M.P., de Pauw, I., Bakker, C., van der Grinten, B., 2016. Product design and business model strategies for a circular economy. Journal of Industrial and Production Engineering 33, 308–320. <https://doi.org/10.1080/21681015.2016.1172124>

Dzhengiz, T., Miller, E., Ovaska, J.-P., & Patala, S. (2023) Unpacking the circular economy: A problematizing review. International Journal of Management Reviews, 00, 1– 27. <https://doi.org/10.1111/ijmr.12329>

Geissdoerfer, M., Savaget, P., Bocken, N.M.P., Hultink, E.J., 2017. The Circular Economy – A new sustainability paradigm? Journal of Cleaner Production 143, 757–768. <https://doi.org/10.1016/j.jclepro.2016.12.048>

Patala, S., Albareda, L. and Halme, M. (2022), Polycentric Governance of Privately Owned Resources in Circular Economy Systems. J. Manage. Stud., 59: 1563-1596. <https://doi.org/10.1111/joms.12810>

Rajala, R., Hakanen, E., Mattila, J., Seppälä, T., Westerlund, M., 2018. How Do Intelligent Goods Shape Closed-Loop Systems? California Management Review 60, 20–44. <https://doi.org/10.1177/0008125618759685>

Sterman, J.D., 2001. System dynamics modeling: tools for learning in a complex world. California management review, 43(4), pp.8-25. <https://journals.sagepub.com/doi/pdf/10.2307/41166098>

1. ETHICAL RULES

Aalto University Code of Academic Integrity and Handling Thereof:

<https://into.aalto.fi/display/ensaannot/Aalto+University+Code+of+Academic+Integrity+and+Handling+Violations+Thereof>