

Topics in Circular Economy

Instructor: Marcelo Aarestrup Arbex **Period:** October 15 - 18, 2024
Lecture Time: 9:00am - 12:00pm **Lecture Location:** TBA

Course Description

The main goal of this course is to introduce students to the economics of the circular economy and the policies that can promote sustainable resource use. The course will explore concepts like market failures, recycling incentives, and product design in an economic framework, assessing policies such as deposit-refund systems, disposal fees, and recyclable design subsidies. Through dynamic general equilibrium models, we will analyze how recycling, waste reduction, and innovation interact with economic growth, environmental sustainability, and welfare to better understand the trade-offs in creating a circular economy and its implications for long-term economic development.

List of Papers

- The Circular Economy (Fullerton, 2024; Fullerton et al., 2022)
- Policy Watch: Examining the Justification for Residential Recycling (Kinnaman, 2006)
- Garbage, Recycling, and Illicit Burning or Dumping (Fullerton and Kinnaman, 1995)
- Policies for Green Design (Fullerton and Wu, 1998)
- Two Generalizations of a Deposit-Refund System (Fullerton and Wolverton, 2000)
- The circular economy and the optimal recycling rate: A macroeconomic approach (Bongers and Casas, 2022)
- Closing the loop in a circular economy: Saving resources or suffocating innovations? (Zhou and Smulders, 2021)

References

- BONGERS, A. AND P. CASAS (2022): “The circular economy and the optimal recycling rate: A macroeconomic approach,” *Ecological Economics*, 199, 107504.
- FULLERTON, D. (2024): “The Circular Economy,” Working Paper 32419, National Bureau of Economic Research.
- FULLERTON, D., C. W. BABBITT, M. M. BILEC, S. HE, C. ISENHOUR, V. KHANNA, E. LEE, AND T. L. THEIS (2022): “Introducing the Circular Economy to Economists,” *Annual Review of Resource Economics*, 14, 493–514.
- FULLERTON, D. AND T. C. KINNAMAN (1995): “Garbage, Recycling, and Illicit Burning or Dumping,” *Journal of Environmental Economics and Management*, 29, 78–91.
- FULLERTON, D. AND A. WOLVERTON (2000): “Two Generalizations of a Deposit-Refund Systems,” *American Economic Review*, 90, 238–242.
- FULLERTON, D. AND W. WU (1998): “Policies for Green Design,” *Journal of Environmental Economics and Management*, 36, 131–148.

KINNAMAN, T. (2006): “Policy Watch: Examining the Justification for Residential Recycling,” *Journal of Economic Perspectives*, 20, 219–232.

ZHOU, S. AND S. SMULDERS (2021): “Closing the loop in a circular economy: Saving resources or suffocating innovations?” *European Economic Review*, 139, 103857.