# DESIGN FOR THE CIRCULAR ECONOMY - GRADUATE CERTIFICATE (ONLINE)

The design for the circular economy certificate on the Coursera platform provides students and working professionals the skills necessary to succeed in the emerging field of the circular economy, where businesses are focused on redesigning products to be less resource intensive and can readily be transformed into new products at the end of their life.

Career opportunities in this field are expanding rapidly within business, government and nonprofit enterprises.

The curriculum focuses on the unique requirements of technical management of circular business models and product development initiatives within an organization, including cradle-to-cradle design methodologies, sustainable and resilient operations and supply chains, and leadership.

This program is offered 100% online, enabling students' greater flexibility with their work schedule and providing for broad reach to students across the globe.

## Requirements

The online Design for the Circular Economy Graduate Certificate is a 9-credit hour, 100% online program. The program offers have three specializations consisting of nine 1-credit hour courses, as outlined below.

There are no prerequisites for any of the courses offered within the program, and students must achieve a B or better to obtain credit for the course.

| Code | Title | Credit Hours |
| --- | --- | --- |
| **Required Courses** | | |
| EMEA 5216 | Sustainability and the Circular Economy | 1 |
| EMEA 5217 | Applied Sustainability Engineering | 1 |
| EMEA 5218 | Leading the Circular and Sustainable Business | 1 |
| EMEA 5221 | Defining the Circular Economy | 1 |
| EMEA 5222 | Product Design for the Circular Economy | 1 |
| EMEA 5223 | Circular Product Design Frameworks and Certifications | 1 |
| EMEA 5226 | Sustainable and Resilient Operations Management | 1 |
| EMEA 5227 | Developing and Managing Sustainable Supply Chains | 1 |
| EMEA 5228 | Impacts of Sustainable Operations and Supply Chains | 1 |
| **Total Credit Hours** | | **9** |

## Learning Outcomes

Learning outcomes for completion of the certificate include foundational technical knowledge and practical professional skills. Students will be able to integrate sustainability and circular economy concepts with the design of products and services that have positive environmental and social impacts, while creating and leading organizations that incorporate principles and practices of the circular economy as core strategic initiatives.

Our graduates will be specialists in the rapidly emerging field of the circular economy. They will understand the underlying foundations of sustainability engineering, the context of how this knowledge can be successfully applied in a business setting, and the leadership skills to drive transformational change within their organizations and communities. As specialists, students will be able to:

- Have a science and fact-based discussion with friends, family and work colleagues that explains the need to rapidly move to a more circular economy.
- Describe our current economic and industrial model of "take-make-waste" and the need to transition to a more resilient and sustainable circular economy.
- Design sustainable products and packaging using cradle-to-cradle methodologies.
- Quantitatively assess a product and organization's social and environmental impacts using the latest data scoring frameworks, including life-cycle analysis, carbon and water footprint analyses.
- Employ brand management strategies to communicate the organizations values and value proposition to their customers;
- Establish operations and supply chains consistent with the organization's sustainability and circular economy goals.
- Identify and apply international frameworks (i.e., ISO 14000) within the organization.