

SUSTAINABLE AND INTEGRATED TREATMENTS FOR WATER AND WASTE IN THE CIRCULAR ECONOMY FRAMEWORK

Maria Cristina Lavagnolo/Valentina Grossule

Program:

The issues related to the development of strategies and technologies for the circular economy, the reuse and recycling of materials, the protection of the environment and human health (prevention of pollution) and for remediation through the sustainable and integrated treatment of solid, liquid and gaseous waste, have undergone rapid development in recent years, acquiring, at international level, primary importance in the socio-economic development strategies of the various countries. The most complete expression of what has happened in the sector is represented by the recent European policies on the Circular Economy, which has become a starting point for a review and planning of our future society. In this course sustainable and integrated treatments for water and waste will be presented and discussed considering some specific applications, focusing particularly on closing the loop of materials and on avoided impacts.

References:

- European Commission (2014). Towards a circular economy: A zero waste programme for Europe
- Lothar Reh (2013). Process engineering in circular economy. Particuology <http://dx.doi.org/10.1016/j.partic.2012.11.001>
- Lavagnolo M.C. (2020). "Closing the Loop" of the Circular Economy and Covid19, Detritus, 10, 1-2, <http://dx.doi.org/10.31025/2611-4135/2020.13949>
- Cossu R., Grossule V., Lavagnolo M.C. (2020). La Discarica Sostenibile. Ruolo nell'economia circolare e proposte normative. ISBN 9788862650182. Ed. CISA

Examination and grading:

Final quiz by moodle

Course details:

The course is offered in-person and will be delivered in late spring