Modulbezeichnung	**Water - anaerobic processes (Wasser - anaerobe Prozesse)**
Semester	WPM
ECTS-Punkte (Dauer)	5 (1 Semester)
Art	Wahlpflichtmodul
Studentische Arbeitsbelastung	45 h Kontaktzeit + 105 h Selbststudium
Voraussetzungen (laut MPO)	
Empf. Voraussetzungen	
Verwendbarkeit	MaALS
Prüfungsform und -dauer	Exam 1,5 h or oral examination
Lehr- und Lernmethoden	Lecture, practical course
Modulverantwortlicher	R. Habermann

Qualifikationsziele
The Students understand the anaerobic processes of wastewater treatment (e.g. UASB reactor) and sludge decomposition (digestion tower). They control the biological fundamentals of anaerobic degradation. They know the structure and function of biogas plants and different types of digestion towers.

Lehrinhalte
The students learn the basics about the anaerobic wastewater treatment, the conversion of waste activated sludge in the digestion tower and of organic substrates in biogas plants. They know factors that influence the biological degradation reactions. Furthermore, they will be enabled to lay digestion towers out and to estimate the biogas amount.

Literatur
Leschber, R.; Loll, U.: ATV-Handbuch: Klärschlamm, Ernst&Sohn-Verlag, Berlin, 1996
C. P. Leslie Grady e.a.: Biological wastewater treatment, London : IWA Publ. ; Boca Raton, Fla. [u.a.] : CRC Press, 2011
M. Henze e.a.: Wastewater Treatment, second Edition, Springer, Berlin ; Heidelberg ; New York, 1997

Lehrveranstaltungen

Dozent	Titel der Lehrveranstaltung	SWS
R. Habermann	Anaerobic processes of water and sludge	2
R. Habermann	Practical course anaerobic processes	1