

<b>Module title</b>	Sediment Transport & Morphodynamics – RWTH Aachen
<b>Identifier</b>	3102188
<b>Duration (Semester)</b>	one semester
<b>Cycle (Semester)</b>	winter semester
<b>Valid from</b>	winter semester 2019
<b>Valid until</b>	-
<b>Module level</b>	Master
<b>Content</b>	Hydromechanics; sedimentology; bed-load transport; suspended-load transport; case-study Rhine; bed evolution; river morphology; monitoring and management.
<b>Learning Objectives/ Learning Outcomes</b>	Students acquire in depth-knowledge of sediment transport and understand the natural morphodynamic behavior of rivers on time scales of seconds to millennia. After completing this module, students can predict the effects of human impact on rivers. They learn skills to solve morphological problems on their own and can recommend engineering methods to stabilize rivers morphodynamically.
<b>(Study-Specific) Prerequisites</b>	None
<b>(recommended) Requirements</b>	For the course 'Sediment Transport and Morphodynamics' knowledge from Hydromechanics I, Hydromechanics II and River Engineering is recommended.
<b>References</b>	Umdruck WBIII Naudascher, E. (1992): Hydraulik der Gerinne und Gerinnebauwerke. Springer. ISBN 3-211-82366-2 Forkel, C. (2003) Numerische Modelle für die Wasserbaupraxis: Grundlagen, Anwendungen und Qualitätsaspekte. IWW, RWTH Aachen. ISBN: 3-8322-3082-3. (Mitteilungen; 130) Blind, H. (1987): Wasserbauten aus Beton. Ernst. ISBN 978-3433010099 Umdruck WBIV Giesecke J.; Mosonyi, E. (2005): Wasserkraftanlagen - Planung, Bau und Betrieb. Springer. ISBN 3-540-44391-6 Rißler, P. (1998): Talsperrenpraxis. Oldenbourg. ISBN 3-486-26428-1 Lecher, K.; Lühr, H.-P.; Zanke, U.C.E. (2001): Taschenbuch der Wasserwirtschaft. Parey. ISBN 978-3528025809 Strobl, T.; Zunic, F. (2006): Wasserbau - Aktuelle Grundlagen - Neue Entwicklungen. Springer. ISBN 978-3-540-22300-9 Umdruck WBIV
<b>Language</b>	English
<b>Examination Terms</b>	Graded written exam. There are no admission requirements for attending the exam.
<b>Miscellaneous</b>	-
<b>Module coordinator</b>	Universitätsprofessor Dr.-Ing. Holger Schüttrumpf
<b>ETCS credits</b>	5
<b>Contact time (WSH)</b>	2
<b>Examination duration (min)</b>	0
<b>Total hours (h)</b>	150
<b>Contact hours (h)</b>	30
<b>Self-study hours (h)</b>	120
<b>Exam node (Kennung)</b>	

Title	ECTS Credits	Contact time (WSH)	Recommended Semester (Study start winter)	Recommended Semester (Study start summer)
Written exam (or oral exam) Sediment Transport and Morphodynamics (301219601)	5	0	3rd semester	no semester recommended
<b>Offer node</b>				
Title	ECTS Credits	Contact time (WSH)	Recommended Semester (Study start winter)	Recommended Semester (Study start summer)
Lecture/exercise Sediment Transport and Morphodynamics	-	2	3rd semester	no semester recommended