

Proposed Double Master's Degree between Universiti Teknologi MARA and University of Stuttgart

This MACROPLAN depicts the 2-year MSc double degree structure in Water Resources Engineering at UiTM and in Water Resources Engineering and Management (WAREM) at University of Stuttgart. It shows the compulsory and elective courses in each courses for students wishing to spend their 2nd year at the partner institution.

1. Semester		2. Semester		3. Semester		4. Semester	
UiTM student in UiTM	Stuttgart student in Stgt.	UiTM student in UiTM	Stgt. student in Stgt.	UiTM student in UiTM	Stgt. student in UiTM	UiTM student in Stgt.	Stgt. student in UiTM
Sustainability Management (2 ECTS-M)	Chemistry and Biology for Environmental Engineers (6 ECTS-S)	Environmental Assessment (4 ECTS-M)	Urban Drainage and Design of wastewater Treatment Plants (6 ECTS-S)	German Language (3 ECTS-S)	Sustainability Management (2 ECTS-M)	German Language (3 ECTS-S)	Stability Management (2 ECTS-M)
Risk Management (2 ECTS-M)	Sanitary Engineering (6 ECTS-S)	German Language (2 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS-S)	Requirements of Prof. Life and Engineering in Practice (1) (1,5 ECTS)	Risk Management (2 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (1) (1,5 ECTS)	Risk Management (2 ECTS-M)
Water Resources Planning and Management (4 ECTS)	Environmental Fluid Mechanics I (6 ECTS-S)	Choose FOUR (4) out of the following: Erosion and Sedimentation (4 ECTS-M)	German Language or key Qualification (3 ECTS-S)	Choose FOUR (4) from the following: Industrial Waste Water (6 ECTS-S)	Water Resources Planning & Management (4 ECTS-M)	Choose FOUR (4) from the following: Industrial Waste Water (6 ECTS-S)	Water Resources Planning & Management (4 ECTS-M)
German Language (2 ECTS)	Hydraulic Structures (1), (3 ECTS-S)*	Flood Management and Mitigation (4 ECTS-M)	Choose THREE (3) from the following: Constructed Wetlands for Waste Water Treatment (3 ECTS-S)	Data, Statistics and Optimization (6 ECTS-S)	Third Language (not German or English) (2 ECTS-M)	Choose THREE (3) from the following: Erosion & Sedimentation (4 ECTS-M)	Third Language (not German or English) (2 ECTS-M)
Choose THREE (3) from the following: Erosion and Sedimentation (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (1) (1,5 ECTS-S)*	Coastal & Harbour Engineering (3 ECTS-M)	Regional and Urban Planning 2 (6 ECTS-S)	Environmental Fluid Mechanics I (6 ECTS-S)	Choose THREE (3) from the following: Erosion & Sedimentation (4 ECTS-M)	Flood Management and Mitigation (4 ECTS-M)	Choose THREE (3) from the following: Erosion & Sedimentation (4 ECTS-M)
Flood Management and Mitigation (4 ECTS-M)	German Language or key qualification (3 ECTS-S)	Environmental Monitoring (4 ECTS-M)	Intergrated Watershed Modelling (6 ECTS-S)	Geoenvironmental Engineering (6 ECTS-S)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Coastal and Harbour Engineering (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Coastal and Harbour Engineering (4 ECTS-M)	Choose ONE (1) from the following: Water and Power Supply (6 ECTS-S)	Advanced Water Supply (4 ECTS-M)	Modelling of Hydrosystems (6 ECTS-S)	Water Resources and Irrigation- Planning Methods and Tools (6 ECTS-S)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Environmental Monitoring (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Environmental Monitoring (4 ECTS-M)	Regional and Urban Planning 1 (6 ECTS-S)	Membrane Technology for Water and Waste Water Treatment (4 ECTS-M)	Integrated River Management and Engineering (6 ECTS-S)	Contaminated Site Remediation and Investigation Technologies (6 ECTS)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Coastal and Harbour Engineering (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Advanced Water Supply (4 ECTS-M)	Data, Statistics and Optimization (6 ECTS-S)	Air Pollution (4 ECTS-M)	Hydrogeological Investigations (6 ECTS-S)	Stochastic Modelling and Geostatistics (6 ECTS)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Environmental Monitoring (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Membrane Technology for Water and Waste Water Treatment (4 ECTS-M)	Geohydrology and Geoenvironmental Engineering (6 ECTS-S)	Groundwater Pollution and Engineering (4 ECTS-M)	Environmental Fluid Mechanics II (6 ECTS-S)	Project Preparation, Management and Finance (from Design to Operation) (6 ECTS-S)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Advanced Water Supply (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Air Pollution (4 ECTS-M)	Choose ONE (1) from the following: Water and Power Supply (6 ECTS-S)	Groundwater Pollution and Engineering (4 ECTS-M)	Limnic Ecology (6 ECTS-S)		Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Advanced Water Supply (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
Groundwater Pollution and Engineering (4 ECTS-M)	Regional and Urban Planning 1 (6 ECTS-S)				Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)	Advanced Water Supply (4 ECTS-M)	Requirements of Prof. Life and Engineering in Practice (2) (1,5 ECTS)
22 ECTS-M (ca. 880 hrs)	30 ECTS-S (ca. 900 hrs)	22 ECTS-M (ca. 880 hrs)	30 ECTS-S (ca. 900 hrs)	30 ECTS-S (ca. 900 hrs)	22 ECTS-M (ca. 880 hrs)	30 ECTS-S (ca. 900 hrs)	23,5 ECTS-M (ca. 940 hrs)

Compulsory modules in bold. ECTS-M: as at UiTM ECTS-S: as at U Stuttgart

Update 1.3.2018

Dr. ZAKIAH AHMAD
Dean
Faculty of Civil Engineering
Universiti Teknologi MARA
40450 SHAH ALAM
SELANGOR

Dr.-ING. SILKE WIEPRECHT
University Stuttgart
Institute for Modelling Hydraulic and Environmental Systems