






## Water and Environmental Engineering Degree (Master of Engineering) Module Overview 2020/2021

Semester 5 - Autumn			Semester 6 - Spring			Semester 7 - Autumn			Semester 8 - Spring			Semester 9 - Autumn 			Semester 10								
Code	Module	ECTS	Code	Module	ECTS	Code	Module	ECTS	Code	Module	ECTS	Code	Module	ECTS	Module								
CALC SCIEN	Higher Mathematics and Scientific Calculations	3	ECOV1 BIO	Life Sciences	3	MECA SOL	Civil Engineering 1	3	GC2	Civil Engineering 2	3	<b>Specialisation</b> (see detailed information on the next page)  The students have to choose between the following specialisations:  Hydrosystems (in English)  24  Water Treatment (in English)  24  Urban Hydraulics 24  Utility Management and Construction Sites 24  Solid Waste 24  INGEN INT <b>International Engineering</b> (in English)  3  MANAG PRO <b>Advanced Project Management</b> (in English)  3  MET IER4 <b>Career Exploration and Preparation 3</b> -  COM6 <b>Personal and Professional Development 3</b> -  FLE <b>French as a Foreign Language</b> (Offered for Incoming Students from Abroad)* 3			<b>Final Engineering Project</b>  6 Months								
SOLVI BIO	Agronomy, Ecology and Microbiology	3	GENI PROC	Process Engineering	3	TREAU C1	Drinking Water Treatment	3	<b>Specialisation</b> (Compulsory electives) See detailed information on the next page							<b>Final Engineering Project</b>  6 Months							
CHIM EAU	Water Chemistry	3		Pipe and Open Channel Hydraulics	3	TREAU S1	Wastewater Treatment	3									VOY AGE	Excursion	-	<b>Final Engineering Project</b>  6 Months			
MECA FLU	Fluid and Continuum Mechanics	3	HF	HEC RAS Modelling, Solid Matter Transport	3	RESP2	Drinking Water Networks 2	3	PRO PLU	Multidisciplinary Project 2	3						<b>Final Engineering Project</b>  6 Months						
HYDRO LOG	Hydrology	3	RESP1	Drinking Water Networks 1	3	RESU2	Sewer Systems 2	3	DECID AID	Financial Decision-Making in Engineering	3							<b>Final Engineering Project</b>  6 Months					
HYDRO GEO	Hydrogeology	3	RESU1	Sewer Systems 1	3	METRO	Metrology	3	LANG4	Foreign languages*	3								<b>Final Engineering Project</b>  6 Months				
STATS	Statistics and DBMS	3	DON NEES	Data Analysis, CAD, GIS	3	ENVIS	Social Sciences of the Environment (Compulsory electives)	3	ENGAG ETU	Student Volunteerism Project	3										<b>Final Engineering Project</b>  6 Months		
GEMINA	Public Management of the Environment and Stakeholders	3	PRORIV	Multidisciplinary Project 1	3	DROIT	Environmental and Urban Law	3	COM4	Personal and Professional Development 2	-											<b>Final Engineering Project</b>  6 Months	
MANA GING	Project Management and Sustainable Development	3	GEST ENP	Company Management Seminar	3	LANG3	Foreign languages*	3	SPI <b>Practical Engineering Internship (SPI)</b> 3 Months from May to July														<b>Final Engineering Project</b>  6 Months
LANG1	Foreign languages*	3	LANG2	Foreign languages*	3	MET IER3	Knowledge of the Working World (Compulsory electives)	3															
COM1	Career Exploration and Preparation 1	-	COM2	Career Exploration and Preparation 2	-	COM3	Personal and Professional Development 1	-	MET IER1 <b>Career Exploration Internship</b> -			<b>Final Engineering Project</b>  6 Months											
MET IER1	Career Exploration Internship	-	MET IER2	On-Site Internship and Safety on Construction Sites	-	MET IER2 <b>On-Site Internship and Safety on Construction Sites</b> -							<b>Final Engineering Project</b>  6 Months										
30			30						30					30						30			
120 ECTS																							

## Water and Environmental Engineering (Master of Engineering) Specialisations - Module Overview 2020/2021

Urban Hydraulics				Hydrosystems - Focus on Surface Systems				Water Treatment				Utility Management and Construction Sites				Solid Waste			
Code	Module	Language	ECTS	Code	Module	Language	ECTS	Code	Module	Language	ECTS	Code	Module	Language	ECTS	Code	Module	Language	ECTS

### Semester 8

VAL ENER	Thermodynamic Approach to Treatments	FR	3	HYDRO MOD1	Modelling Tools for Water Resource Management 1	FR	3	VAL ENER	Thermodynamic Approach to Treatments	FR	3	VAL ENER	Thermodynamic Approach to Treatments	FR	3	VAL ENER	Thermodynamic Approach to Treatments	FR	3
HYDRAU MOD	3D Modelling Hydraulics	FR	3	HYDRO MOD2	Modelling Tools for Water Resource Management 2	FR	3	AUTOM	Electrotechnics and Automation	FR	3	AUTOM	Electrotechnics and Automation	FR	3	AUTOM	Electrotechnics and Automation	FR	3

**Total ECTS Specialisation in Semester 8**

**6**

### Semester 9

																See detailed information on our website (in French) Gestion traitement et valorisation des déchets (GEDE)	
PILOT	Public Performance Monitoring and Expertise	EN	3	GESTER	Territorial Management of the Environment and Risks	EN	6	PILOT	Service Organisation and Expertise	EN	3	PILOT	Service Organisation and Expertise	EN	3		
MOD	3D Modelling for Sanitation and Drinking Water Supply	FR	3					NOR MAL	Standardisation and Risk Evaluation	EN	3	NOR MAL	Standardisation and Risk Evaluation	EN	3		
MOD ASS	Advanced Modelling for Sanitation	FR	3	GESER	Erosion and Solid Matter Transport	EN	3	TREAU C2	Drinking Water Treatment 2	EN	3	REAL TRAV	Contracts for the Public Sector	FR	3		
MOD AEP	Quality Modelling for Water Supply	FR	3	GES QUAL1	Contaminant Transport in Hydrosystems	EN	3	TREAU S2	Wastewater Treatment 2	EN	3	DIA GOUV	Diagnostics and Rehabilitation of Water Storage Infrastructure	FR	3		
GC3	Project Construction and Network Implementation	FR	3	ING ECOL	Ecological Engineering	EN	3	ING ECOL	Ecological Engineering	EN	3	GC3	Civil Engineering - Project Construction / Network Implementation	FR	3		
GEST PAT	Management of Potable Water Stewardship and Sanitation	FR	3	GES QUAL2	Management of Aquatic Natural Environments	EN	3	TREAU S3	Wastewater Treatment Modelling	EN	3	GEST PAT	Management of Potable Water Stewardship and Sanitation	FR	3		
HYDRO MOD3	Management of Flooding Risks and 2D Urban Stream Flood Modelling	EN	3	HYDRO MOD3	Management of Flooding Risks and 2D Urban Stream Flood Modelling	EN	3	MHY TREA	Modelling Hydrodynamic and Reactive Transfers in Constructed Wetland	EN	3	DROI TRAV	Team Management, Labour Law, Operational Safety	FR	3		
PROTEC	Technological Project/ Company Project	FR	3	PROTEC	Technological Project/ Company Project	EN	3	PROTEC	Technological Project/ Company Project	EN	3	EXPLOIT	Operation of Systems	FR	3		

**Total ECTS Specialisation in Semester 9**

**24**