		Curriculum Molecular Sciences 2017-2018 - 1st year													
		E = taught in English													
		As of the first year 2016-2017, Chemistry and Molecular Life Sciences are English taught programmes													
		The science programme is not a fully English taught programme													
		Chemistry													
	code	**1st Quarter**	**ec**		code	**2nd Quarter**	**ec**		code	**3rd Quarter**	**ec**		code	**4th Quarter**	**ec**
E	NWI-MOL001A	Chemical analysis	3	Tutor E	NWI-MOL010	Biochemistry project	6	E	NWI-MOL005	Reactions and kinetics project	6	E	NWI-MOL014	Electricity & Magnetism 1A	3
Tutor E	NWI-MOL079	Structure of Atoms and molecules	3	E	NWI-MOL080	Molecular structure	3	E	NWI-MOL007	Reactions and kinetics	3	E	NWI-MOL018	Thermodynamics project	6
E	NWI-MOL008A	Biochemistry***					6	Tutor E	NWI-MOL017	Thermodynamics	3	Tutor E	NWI-MOL019	Spectroscopic techniques	3
E	NWI-MOL004	Mathematics 1	3	E	NWI-MOL009A	Mathematics 2-3***					6	E	NWI-MOL020	Environmental chemistry and sustainability	3
E	NWI-MOL003	Mechanics 1A	3												
or: E/N	NWI-MOL003B	Mechanica 1B *													
			12				15				18				15
		Molecular Life Sciences													
E	NWI-MOL001A	Chemical analysis	3	Tutor E	NWI-MOL010	Biochemistry project	6	E	NWI-MOL005	Reactions and kinetics project	6	E	NWI-MOL014	Electricity & Magnetism 1A	3
Tutor E	NWI-MOL079	Structure of Atoms and molecules	3	E	NWI-MOL080	Molecular structure	3	E	NWI-MOL007	Reactions and kinetics	3	E	NWI-MOL021	Celbiophysics project	6
E	NWI-MOL008A	Biochemistry					6	Tutor E	NWI-MOL017	Thermodynamics	3	Tutor E	NWI-MOL019	Spectroscopic techniques	3
E	NWI-MOL004	Mathematics 1	3	E	NWI-MOL009A	Mathematics 2-3					6	E	NWI-MOL022	Aspects of the Molecular Life Sciences	3
E	NWI-MOL003	Mechanica 1A	3												
or: E/N	NWI-MOL003B	Mechanics 1B *			0										
			12				15				18				15
		Science													
E	NWI-MOL001A	Chemical analysis	3		NWI-IPC002	Talen en Automaten	3	Tutor E	NWI-MOL017	Thermodynamics	3	E	NWI-MOL026	Mathematics 4	3
Tutor E	NWI-MOL079	Structure of Atoms and molecules	3	E	NWI-MOL080	Molecular structure	3	E	NWI-MOL007	Reactions and kinetics	3				
E	NWI-MOL008A	Biochemistry					6						*NWI-NP032B*	*Inleiding neuroscience (elective)*	*3*
E	NWI-MOL004	Mathematics 1	3	E	NWI-MOL009A	Mathematics 2-3					6	Tutor E	*NWI-MOL019*	*Spectroscopic Techniques(elective)*	*3*
E	NWI-MOL003	Mechanics 1A	3	E	NWI-MOL012	Mechanics 2A	3			***Kies 6 ec uit:***					
of: E/N	NWI-MOL003B	Mechanica 1B *		of:	NWI-NP036	Rotaties en periodieke bewegingen	3	E	*NWI-MOL006*	*Reactions and kinetics project ++*	*3*		NWI-NP037	Electriciteit en Magnetisme	6
								E	*NWI-MOL024*	*Fourier analysis & mechanical waves (elective)*	*3*	of E	NWI-MOL014	Electricity & Magnetism 1A	3
									NWI-MOL098	*Object orientatie*	*3*				
									NWI-MOL038A	*(Populatie) Genetica NOT YET CONFIRMED*	*3*				
	NWI-MOL103B	**Panorama Science: Science and society**											**NWI-MOL103B**	**Panorama Science, project E**	**6**
			12				15				18				15
									++:						
*	**Mechanica 1B**	**Mechanics on more challenging physics level for students of Molecular Sciences**							***Er is een beperkt aantal plaatsen beschikbaar in de 6 ec-variant MOL005***						
		In Dutch													
**	**Mechanics 2B**	**will be called Rotaties en periodieke bewegingen**													
		In Dutch													
***	**Biochemistry/Mathematics 2-3: Combined courses in '17/'18**														
		Students that failed one of the constituting courses in '16/'17 will have the chance to retake those parts													

Curriculum Molecular Sciences 2017-2018 - 2nd year

E = taught in English

x When possible, 3 ec courses in the MLS programme after Q7 are given on Wednesdays

P = priority course MLS

I = Mo/Tue; II = Thur/Fri

Starting in 2017-2018, Chemistry courses and all Molecular Life Sciences priority courses will be taught in English

		Chemistry											Tutor				
	code	**5th Quarter**	**ec**		code	**6th Quarter**	**ec**		code	**7th Quarter**	**ec**		code	**8th Quarter**	**ec**		
E	NWI-MOL027	DNA technology	3	E	NWI-MOL032	Crystal structure	3	E	NWI-MOL046	Quantum mechanics 2	3	E	NWI-MOL056	Chemical bonding	3		
E	NWI-MOL016	Linear algebra	3	E	NWI-MOL012	Mechanics 2A	3	E	NWI-MOL042	Fourier analysis	3	E	NWI-MOL025	Electricity and Magnetism 2A	3		
E	NWI-MOL040	Thermodynamics 2	3	E	NWI-MOL041	Quantum mechanics 1	3	E	NWI-MOL045	Microscopic techniques	3						
E	NWI-MOL033	Programming in Matlab	3	E	NWI-MOL102	Inorganic chemistry*	3	E	NWI-MOL047	Synthesis of biomolecules	3	E	NWI-MOL048A	Organic chemistry lab	6		
E	NWI-MOL028	Statistics	3	E	NWI-MOL044	Inorganic chemistry lab**	3					**or E**	NWI-MOL034	Condensed matter lab (max 16)	3		
						* first 4 weeks; ** second 4 weeks				***Choose from e.g.:***	***3***	E	NWI-MOL050	Condensed matter	3		
								E	*NWI-MOL035*	*Chemistry and society*	*3*	**or E I**	NWI-BB017C*	Biochemistry-Molecular Biology II	6		
								E	*NWI-FCEM02B*	*CEM: Writing Skills/schrijfvaardigheid*	*3*	E	*NWI-FCEM02B*	*CEM: Writing Skills/schrijfvaardigheid*	*3*		
								E	*NWI-MOL043*	*Bioinorganic chemistry*	3						
								E	*NWI-MOL108*	*Magnetic resonance in chemistry*	*3*						
													** if you take BB017C, MOL025 is optional*				
			15				15				15				15		
		Molecular Life Sciences															
E	NWI-MOL027	DNA technology	3	E	NWI-MOL032	Crystal structure	3	**E P I**	**NWI-BB023B**	**Animal Cell biology**	**6**	**E P I**	**NWI-BB017C**	**Biochemistry-Molecular Biology II**	**6**		
E	NWI-MOL075	Bioinformatics A	3	E	NWI-MOL036	General Physiology	3					E I	NWI-BB048B	Endocrinology	6		
E	NWI-MOL031	Biochemistry in the living cell	3	E	NWI-MOL076	Programming: Matlab	3										
E	NWI-MOL105	Inorganic biochemistry	3	E	NWI-MOL038	Genetics	3	**E P II**	**NWI-MOL054**	**Toxicology**	**6**	**E P II**	**NWI-MOL049A**	**Chemical biology project**	**6**		
E	NWI-MOL028	Statistics	3	E	NWI-MOL037	MLS and society	3	E II	NWI-BB020B	Adaptation physiology	6	**E P II**	**NWI-BB034B**	**Neurobiology**	**6**		
								E II	NWI-BB085B	Brain and behaviour	6						
								E II	NWI-BB047C	Hum. Embryology & Developm. Biol.	6	E II	NWI-BB025B	Medical pathology	6		
								E	NWI-BB028B	History of biology	3						
								E	NWI-FCEM02B	CEM: Writing Skills/schrijfvaardigheid	3	NL/E	NWI-FFIL100	Philosophy (Biological topics)	3		
								E P	**NWI-MOL047**	**Synthesis of biomolecules**	**3**	E	NWI-FCEM02B	CEM: Writing Skills/schrijfvaardigheid	3		
								E	NWI-MOL108	Magnetic resonance in chemistry	3						
			15				15				15				15		
		Science Zie ook de voorkeursprofielen in de studiegids															
	Keuzes	**(uit voorkeursprofielen)**			***Verplicht***								***Keuzes***	**(uit voorkeursprofielen)**			
E	NWI-MOL027	DNA technology	3		NWI-MOL092	Panorama Science: energy & sustainability			NWI-MOL092	Panorama Science: energy & sustainability	6	*E*	*NWI-MOL056*	*Chemical bonding*	*3*		
E	NWI-MOL075	Bioinformatics A	3		***Keuzes***	**(uit voorkeursprofielen)**			***Keuzes***	**(uit voorkeursprofielen)**			*NWI-MOL051*	*Project spectroscopie*	*3*		
E	NWI-MOL016	Linear Algebra	3	E	NWI-MOL032	Crystal structure	3		NWI-NB027B	Neurofysica 1	3	*E I*	*NWI-BB017C*	*Biochemistry-Molecular Biology II*	*6*		
	NWI-NB006B	Trillingen en golven		E	NWI-MOL036	General Physiology	3	E I	NWI-BB023B	Animal Cell biology	6	*E II*	*NWI-BB034B*	*Neurobiology*	*6*		
	NWI-MOL039	Fysisch practicum			NWI-MOL039	Fysisch practicum	6	E	NWI-MOL046	Quantum mechanics 2	3	*E*	*NWI-MOL050*	*Condensed matter*	*3*		
E	NWI-MOL040	Thermodynamics 2	3	E	NWI-MOL041	Quantum mechanics 1	3	E	NWI-MOL047	Synthesis of biomolecules	3		*NWI-FCEM02B*	*Schrijfcursus*	*3*		
E	NWI-MOL028	Statistics	3										*NWI-FFIL100*	*Filosofie (Bio)*	*3*		
				E	*NWI-MOL102*	*Inorganic chemistry*	*3*		*NWI-FCEM02B*	*Schrijfcursus*	*3*	*E*	*NWI-MOL025*	*Electricity and Magnetism 2A*	*3*		
				E	*NWI-MOL044*	*Inorganic chemistry lab*	*3*		*NWI-MOL085*	*Programmeren Matlab voor NW*	*3*	*E*	*NWI-MOL049A*	*Chemical biology project*	*6*		
				E	*NWI-MOL038*	*Genetics*	*3*	E	*NWI-MOL108*	*Magnetic resonance in chemistry*	*3*	*E*	*NWI-MOL048B*	*Organic chemistry lab*	*6*		
					NWI-NB001B	*Analytische mechanica*	*3*										

		Curriculum Molecular Sciences 2017-2018 - 3rd year													
		E = taught in English													
		x When possible, 3 ec courses in the MLS programme after q7 are given on Wednesdays													
		P = priority course MLS													
		I = Mo/Tue; II = Thur/Fri													
		Starting in 2018-2019, 3rd year Chemistry courses and 3rd yr Molecular Life Sciences priority courses will be taught in English													
		Chemistry										Tutor			
	code	**9th Quarter**	**ec**		code	**10th Quarter**	**ec**		code	**11th Quarter**	**ec**		code	**12th Quarter**	**ec**
		Electives, e.g.:	***15***			***Electives, e.g.:***	***15***			***Electives, e.g.:***	***15***			**Bachelorstage**	**12**
		Minor programme or exchange programme				***Minor programme or exchange programme***		***E*** *I*	*NWI-MOL065*	*Chemometrics*	*6*		NWI-MOL086	Academic skills	3
	NWI-MOL029	*Bioinformatica*	*3*	***E***	*NWI-MOL064*	*Spectroscopy of Atoms and Molecules*	*3*		*NWI-MB024C*	*HERA (environmental risk assessment)*	*6*				
E *II*	*NWI-MOL095*	*Organic chemistry*	*6*	***E***	*NWI-MOL094*	*Physical organic chemistry*	*3*	*II*	*NWI-MOL066*	*Structuur, functie en bioinformatica (max 18)*	*6*			***Electives, e.g.:***	
	NWI-NB046C	*Chemie en fysica v/d atmosfeer*	*3*		*NWI-MOL071*	*Kristalgroei*	*3*	***E*** *II*	*NWI-MOL054*	*Toxicology*	*6*		*NWI-MOL087A**	*Practicum synthese (organisch) (max 18)*	*3*
E	*NWI-MOL110*	*Applied magnetic resonance (max 36)*	*3*		*NWI-FCEM02B*	*Schrijfcursus*	*3*	***E***	*NWI-MOL093*	*Stereoselective synthesis*	*3*		*NWI-MOL087B**	*Practicum synthese (anorganisch)*	*3*
E *I*	*NWI-MOL053*	*Pharmacochemistry*	*6*		*NWI-MOL059*	*Statistische thermodynamica*	*6*		*NWI-MOL035*	*Chemie & samenleving*	*3*		*** MOL087B *only after* MOL087A** (total 6 ec)		
	NWI-MOL106	*Toegepaste quantumchemie*	*3*		*NWI-MOL091*	*Green chemistry*	3	***E***	*NWI-MOL096*	*Metalorganic chemistry (if available)*	*3*		*NWI-FCEM02B*	*Schrijfcursus*	*3*
	NWI-FFIL101	*Filosofie 1 (Natuurkundige onderwerpen)*	*3*	E	*NWI-FFIL101*	*Philosophy 1 (Molecular topics)*	*3*		*NWI-FCEM02B*	*Schrijfcursus*	*3*	E/NL	*NWI-FFIL100*	*Filosofie (Bio)*	*3*
	NWI-FCEM02B	*Schrijfcursus*	*3*		*NWI-MB021B*	*Intr. Geographic Information Systems*	*6*		NWI-MOL111	Biophysical chemistry	3				
					NWI-GCSE007	*Beleid, ondernemerschap en innovatie*	3								
					NWI-FC0042B	*Debating science & society*	3								
		Molecular Life Sciences													
E P* I	NWI-BB086	Genomics for Health and Environment (max 15 MLW)	**12**											**Bachelorstage**	**12**
E P I	**NWI-BB063B**	**Neuroscience**	**6**	**E P I**	**NWI-BB019B**	**Immunology (MAX 120 stud)**	**6**	I	NWI-BB065B	Pathofysiologie van de nier	6		NWI-MOL086	Academic skills	**3**
E P I	**NWI-MOL053**	**Pharmacochemistry**	**6**	**E P**	**NWI-MOL107**	**RNA Structure and function**	**6**	**E P I**	**NWI-MOL109**	**Chemometrics for Molecular Life Sciences**	**6**				
E P I	NWI-BB024B	Physiology of microorganisms	6	E I	NWI-BB039B	Neurodevelopment (MAX 60?)	6	**E P I**	**NWI-BB064B**	**Functional Genomics**	**6**		*NWI-MOL087A**	*Practicum synthese (organisch) (max 18)*	*3*
E P II	**NWI-MOL095**	**Organic chemistry**	**6**	**E P II**	**NWI-MOL078**	**Nanobiotechnology**	**6**	**II**	**NWI-MOL066**	**Structuur, functie en bioinformatica (max 18)**	**6**		*NWI-MOL087B**	*Practicum synthese (anorganisch)*	*3*
E P II	**NWI-MOL104**	**Medical biotechnology (max 25)**	**6**	**P II**	**NWI-BB084B**	**Molecular principles of development**	**6**	**E P II**	**NWI-MOL055**	**Molecular basis of Diseases**	**6**		*** MOL087B *only after* MOL087A** (total 6 ec)		
E II	NWI-BB080B	Neurophysiology of cognition and behaviour	6	II	NWI-BB021B	Neurobiofysica	6	E II	NWI-BB081B	Cognitive Neuroimaging (Brain dynamics)	6		*NWI-FCEM02B*	*Schrijfcursus*	*3*
E P* II	NWI-BB086	Genomics for Health and Environment (max 15 MLW)						II	NWI-MB024C	HERA (environmental risk assessment)	6	E/NL	*NWI-FFIL100*	*Filosofie (Bio)*	*3*
	****: NWI-BB086 6 ec count as priority course***														
P	**NWI-MOL100**	**Spectroscopie van biomoleculen**	**3**		NWI-MOL091	Green chemistry	3	**P**	**NWI-MOL111**	**Biophysical chemistry**	**3**				
	NWI-FFIL101	Filosofie 1	3	E	NWI-FFIL101	Philosophy 1 (Molecular topics)	3	**E P**	**NWI-MOL073**	**Comparative genome analysis (max 30)**	**3**				
	NWI-FCEM02b	Schrijfcursus	3		NWI-FCEM02B	Schrijfcursus	3		NWI-FCEM02B	Schrijfcursus	3				
E	NWI-MOL110	Applied magnetic resonance (max 36)	3		NWI-GCSE007	Beleid, ondernemerschap en innovatie	3								
					NWI-FC0042B	Debating science & society	3								
					NWI-ILSBI03	Inleiding Educatie	3								
		Minor programme or exchange programme				***Minor programme or exchange programme***									
		e.g. Minor Translational Neuroscience													
		Science Zie ook de voorkeursprofielen bij de studieadviseur													
	profiel	**Bio Fysisch**													
		Zie de voorkeursprofielen												**Bachelorstage**	**12**
		Minor programme or exchange programme				***Minor programme or exchange programme***							NWI-MOL086	Academic skills	3
					verplicht:				**verplicht:**						
					NWI-MOL099	**Panorama: Food and Health**			**NWI-MOL099**	**Panorama: Food and Health**	**6**				
	profiel	**Fysisch Chemisch**													
		Zie de voorkeursprofielen												**Bachelorstage**	**12**
		Minor programme or exchange programme				***Minor programme or exchange programme***							NWI-MOL086	Academic skills	3
					verplicht:				**verplicht:**						
					NWI-MOL099	**Panorama: Food and Health**			**NWI-MOL099**	**Panorama: Food and Health**	**6**				
	profiel	**Bio Chemisch**													
		Zie de voorkeursprofielen												**Bachelorstage**	**12**
		Minor programme or exchange programme				***Minor programme or exchange programme***							NWI-MOL086	Academic skills	3
					verplicht:				**verplicht:**						
					NWI-MOL099	**Panorama: Food and Health**			**NWI-MOL099**	**Panorama: Food and Health**	**6**				