

# Curriculum Master Molecular Life Sciences

## 1. General overview according to academic years

1st academic year		2nd academic year	
WS	SS	WS	SS
<b>MMLS.G1</b> 7 hpw Molecular Developmental Biology	MMLS.A1 7 hpw Mol. Devel. of Model Systems	<b>MMLS.T1</b> Specialisation Module MMLS	<b>MMLS.T3</b> Master Thesis MMLS
<b>MMLS.G2</b> 7 hpw Molecular Genetics	MMLS.A2 7 hpw Evol. Devel. Biology	<b>MMLS.T2</b> Project Module MMLS	
<b>MMLS.G3</b> 6 hpw Molecular Cell Biology			
	MMLS.A3 7 hpw Developmental Control Gene		
	MMLS.A4 7 hpw Gene Regulation		
	MMLS.A5 7 hpw Theoretical Systems Biology		
	MMLS.A6 7 hpw Applied Systems Biology		
	MMLS.A7 7 hpw Signal transduction		
	MMLS.A9 7 hpw Biological Clock and Temporal Gene Expression		
	MMLS.A10 7 hpw Mol. Med. of Ion Transport		
	MMLS.A17 7 hpw Genome Integrity, Tumors and Ageing		
	MMLS.A12 7 hpw Organelles: Devel. a. Function		
	MMLS.A13 7 hpw Cellular Networks		
	MMLS.A14 8 hpw Systematic Neurobiology		
	MMLS.A15 8 hpw Development and Plasticity of Nervous System II		
	MMLS.A16 7 hpw Symbiosis, Signalling and Metabolism		

**Basic modules (compulsory)**

Advanced modules (compulsory elective)

Interdisciplinary module:

Modules from other degree programmes will be included after mandatory mentors advise if they particularly enhance the interdisciplinary character of the study course. Examples could be – aside from other life science subjects (e. g. offered within the Master programme Biochemistry, Molecular Medicine or Microbiology) – specifically Ethics, Scientific English, Nanotechnologies, Photonics. Also an internship at external research institutions can be accredited after previous student advisory service within the scope of an advanced module.

## International mobility / Mobility window

Study stays abroad within the Master degree programme Molecular Life Sciences are possible and desired. For the support of students, who want to go abroad, a special entry on the website publishes links to the International Office, the Erasmus Programme, the networking amongst Coimbra Universities, current links (such as RISE) and the offer of an individual mentoring.

To make the recognition of achievements easier, a "Learning Agreement" about the planned study programme should be arranged with the responsible professor of the degree programme and should be provided to the Study and Examination Office. Possibilities of a degree programme related mobility can be given by the responsible professor of the degree programme as well as the Study and Examination Office.

## 2. General Overview According to Subject-Related Semesters and Credit Points

Module number	Module name	Credit points
1st Semester	3 Basic modules	
MMLS.G1	Basic module „Molecular Developmental Biology“	10
MMLS.G2	Basic module „Molecular Genetics“	10
MMLS.G3	Basic module „ Molecular Cell Biology “	10
2nd Semester	3 Advanced modules <sup>1</sup>	
MMLS.A1	Advanced module „Molecular Developmental Biology of Model Systems “	10
MMLS.A2	Advanced module „Evolutionary Developmental Biology“	10
MMLS.A3	Advanced module „Developmental Control Genes“	10
MMLS.A4	Advanced module „Gene Regulation“	10
MMLS.A5	Advanced module „Theoretical Systems Biology“	10
MMLS.A6	Advanced module „Applied Systems Biology“	10
MMLS.A7	Advanced module „Signal Transduction“	10
MMLS.A9	Advanced module „Biological Clock and Temporal Gene Expression“	10
MMLS.A10	Advanced module „Molecular Medicine of Ion Transport“	10
MMLS.A17	Advanced module „Genome Integrity, Tumors and Ageing”	10
MMLS.A12	Advanced module „Organelles: Development and Function“	10
MMLS.A13	Advanced module “Cellular Networks”	10
MMLS.A14	Advanced module “Systematic Neurobiology”	10
MMLS.A15	Advanced module “Development and Plasticity of Nervous System II”	10
MMLS.A16	Advanced Module “Symbiosis, Signalling and Metabolism”	10
3rd Semester	2 Modules	
MMLS.T1	Specialisation Module	10
MMLS.T2	Project Module	20
4th Semester	Master thesis	
MMLS.T3	Master thesis	30

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<sup>1</sup> The Advanced modules can be freely chosen.