

The Master program has the minimum duration of 3 semesters and comprises 90 ECTS :

- 11.5 ECTS : Compulsory courses
- 19.5 ECTS : Optional courses
- 14 ECTS : First step project
- 45 ECTS : Personal research project (Master thesis)

Autumn Semester (semester 1)

Course	Teaching Staff	Hours per semester			ECTS Credits
		C	E/S	PW	
General and common activities - Compulsory					
Retreat and BIG seminars	Fankhauser C., ...				1
Sequence a genome (Part I)	van der Meer J., Robinson-Rechavi M., ...	14	42		3
Write a review	Fankhauser C., Sohrmann M., tutors	14		42	3
Free time for reading scientific articles etc... (14 x 4 hours)				56	
Total					7
Optional (choice -> 9 credits)					
Understanding bacterial metabolism from a genomic perspective	van der Meer J.	14			1.5
Immunology with relevance to infectious diseases	Nardelli D., Roger T.	14			1.5
Advanced bacterial genetics and small RNA regulation	Collier J., Reimann C.	14			1.5
Virus-host interactions	Kunz S., Herr W., Meylan P.	14			1.5
Fungal virulence and pathogenicity	Sanglard D.	14			1.5
Plant interactions with Microbes and Insects	Keel C., Paszkowski U., Reymond P.	14			1.5
Genetics and evolution of insect and plant development	Benton R., Geldner N.	14			1.5
Development of skeletal muscle and adipose tissue	Wahli W.	14			1.5
Development of Vertebrate limb	Grapin-Botton A.	14			1.5
Development of the nervous system	Braissant O.	14			1.5
Plant functional genetics	Poirier Y.	14			1.5
Human Molecular Genetics	Rivolta C., Chrast R.	14			1.5
Biotechnology	Poirier Y., Mermod N.	14			1.5
Practical project					
First step project	Fankhauser C.			250	14
Total					30

Abbreviations

- C = Course
 E/S = Exercise/Seminar
 PW = Practical Work

Spring Semester (semester 2)

Course	Teaching Staff	Hours per semester			ECTS Credits
		C	E/S	PW	
General and common activities - Compulsory					
Sequence a genome (Part II)	van der Meer J., Robinson-Rechavi M., ...	14	42		3
Write a fellowship	Fankhauser C., Sohrmann M., tutors	7		21	1.5
Total					4.5
Optional (choice -> 10.5 credits)					
Anti-Infective agents	Sanglard D., Hauser P., Greub G., Ciuffi A.	14			1.5
Bacterial virulence and pathogenicity	Greub G., Bille J.	14			1.5
Cytoskeleton from microbes to man	Martin S., Collier J.	12			1.5
Epidemiology	Blanc D., Hauser P., Meylan P., Zanetti G., Sanglard D.	14			1.5
From receptors to genes: selected chapters of molecular endocrinology	Mermod N.	24			3
Genomics, Proteomics and Quantitative Genetics	Franken P., Tafti M., Quadroni M., Goudet J., Weber J., Harshman K.,	24			3
Microbes as tools in experimental biology	Sanglard D., Ciuffi A.	14			1.5
Nuclear receptors and gene regulation	Wahli W.	12			1.5
Nutrition from a genomic perspective	Wahli W., and others	24			3
Recombinant proteins: applications in research and medicine	Corthésy B.	12			1.5
The effects of the environment on development	Fankhauser C., Hardtke C.	24			3
Transmission of signals in plant defence	Nawrath C.	24			3
Viral pathogenesis and emerging viruses	Kunz S., Moradpour D., Meylan P., Ciuffi A.	14			1.5
Institute seminars	Fankhauser C.				
Compulsory personal research project					
Personal Research Project - Master thesis				280	15
Total					30

Semester 3

Course				ECTS Credits
Compulsory personal research project				
Personal Research Project - Master thesis				30