

## 2nd year Bachelor 2023-2024

Modules and domains	Components	Nb hours	Coordinator	Credits
<b>BMed2.1 Cells and signals (4 weeks)</b>			<b>Widmann Christian</b>	<b>7</b>
B2.1 Cells and signals - General pathology - Lesions and adaptations	Course	11		
B2.1 Cells and signals - General pathology - Neoplasia	Course	11		
B2.1 Cells and signals - Pharmacology - Basics of pharmacology	Course	8		
B2.1 Cells and signals - Pharmacology - Basics of pharmacology	Exercises	1		
B2.1 Cells and signals - Glands and hormones - Morphology of endocrine organs	Course	5		
B2.1 Cells and signals - Glands and hormones - Physiology of endocrine organs	Course	12		
B2.1 Cells and signals - Introduction to the nervous system - Autonomous nervous system	Course	6		
B2.1 Cells and signals - Radiology - Basics of radiotherapy	Course	2		
B2.1 Cells and signals - Radiology - Basics of medical imaging	Course	6		
	<b>Total</b>	<b>62</b>		
<b>BMed2.2 Blood, immunity, microbes (5 weeks)</b>			<b>Perreau Matthieu</b>	<b>9</b>
B2.2 Blood, immunity, microbes - Blood - Haemostasis and fibrinolysis	Course	7		
B2.2 Blood, immunity, microbes - Blood - Structure and physiology of hemoglobin	Course	5		
B2.2 Blood, immunity, microbes - Blood - Functional anatomy of the hematopoietic system	Course	5		
B2.2 Blood, immunity, microbes - Immunity - Adaptive immunity	Course	17		
B2.2 Blood, immunity, microbes - Immunity - Innate immunity	Course	6		
B2.2 Blood, immunity, microbes - Immunity - Innate and adaptive immunity	Course	10		
B2.2 Blood, immunity, microbes - Immunity - Acute and chronique inflammation	Course	4		
B2.2 Blood, immunity, microbes - Immunity - Morphology	Course	1		
B2.2 Blood, immunity, microbes - Microbes - Basic concepts	Course	6		
B2.2 Blood, immunity, microbes - Microbes - Bacteria	Course	4		
B2.2 Blood, immunity, microbes - Microbes - Fungi and parasites	Course	2		
B2.2 Blood, immunity, microbes - Microbes - Diagnostic	Course	4		
B2.2 Blood, immunity, microbes - Microbes - Viruses	Course	2		
B2.2 Blood, immunity, microbes - Microbes - Epidemiology	Course	6		
B2.2 Blood, immunity, microbes - Microbes - Exercise	Exercises	2		
B2.2 Blood, immunity, microbes - Repetitory	Répétitoire	2		
	<b>Total</b>	<b>83</b>		
<b>BMed2.3 Neuroscience (5 weeks)</b>			<b>Puyal Julien</b>	<b>9</b>
B2.3 Neuroscience	Course	1		
B2.3 Neuroscience - Introduction to the nervous system - Morphology	Course	9		
B2.3 Neuroscience - Introduction to the nervous system - Pharmacology	Course	4		
B2.3 Neuroscience - Locomotor system - Morphology	Course	8		
B2.3 Neuroscience - Locomotor system - Neurology	Course	6		
B2.3 Neuroscience - Locomotor system - Pharmacology	Course	2		
B2.3 Neuroscience - Sensory systems - Pain/somatosensory system	Course	8		
B2.3 Neuroscience - Sensory systems - Auditory and vestibular system	Course	11		
B2.3 Neuroscience - Sensory systems - Visual system	Course	12		
B2.3 Neuroscience - Cerebral vascularization - Morphology	Course	4		
B2.3 Neuroscience - Cerebral vascularization - Pathologie	Course	2		
B2.3 Neuroscience - Cerebral vascularization - Radiology	Course	2		
	<b>Total</b>	<b>69</b>		

## 2nd year Bachelor 2023-2024

Modules and domains	Components	Nb hours	Coordinator	Credits
<b>BMed2.4 Cardiovascular and respiratory systems (5 weeks)</b>			<b>Amati Francesca</b>	<b>9</b>
B2.4 Cardiovascular and respiratory systems - Heart - Cardiac cycle	Course	7		
B2.4 Cardiovascular and respiratory systems - Heart - Morphology	Course	12		
B2.4 Cardiovascular and respiratory systems - Heart - Control	Course	8		
B2.4 Cardiovascular and respiratory systems - Vessels - Fluid dynamics	Course	4		
B2.4 Cardiovascular and respiratory systems - Vessels - Arteries, veins and microcirculation	Course	6		
B2.4 Cardiovascular and respiratory systems - Lungs - Gaz exchange	Course	4		
B2.4 Cardiovascular and respiratory systems - Lungs - Ventilation	Course	4		
B2.4 Cardiovascular and respiratory systems - Lungs - Morphology	Course	11		
B2.4 Cardiovascular and respiratory systems - Lungs - Control	Course	3		
B2.4 Cardiovascular and respiratory systems - Investigations - Functional testing	Course	4		
B2.4 Cardiovascular and respiratory systems - Investigations - Radiology	Course	3		
B2.4 Cardiovascular and respiratory systems - Integration - Pharmacology	Course	3		
B2.4 Cardiovascular and respiratory systems - Integration - Physiopathology	Course	9		
B2.4 Cardiovascular and respiratory systems - Integration - Vignette	Course	9		
	<b>Total</b>	<b>87</b>		
<b>BMed2.5 Digestion, metabolism (4 weeks)</b>			<b>Tran Christel</b>	<b>7</b>
B2.5 Digestion, metabolism - Digestion - Oral cavity	Course	5		
B2.5 Digestion, metabolism - Digestion - Digestive tract	Course	17		
B2.5 Digestion, metabolism - Digestion - Hepatobiliary-pancreatic system	Course	3		
B2.5 Digestion, metabolism - Digestion - Pathology of the digestive tract	Course	7		
B2.5 Digestion, metabolism - Digestion - Pathology of the hepatobiliary-pancreatic system	Course	4		
B2.5 Digestion, metabolism - Metabolism - Metabolic pathways	Course	21		
B2.5 Digestion, metabolism - Metabolism - Glucose homeostasis	Course	7		
B2.5 Digestion, metabolism - Metabolism - Energy needs and obesity	Course	7		
B2.5 Digestion, metabolism - Metabolism - Nutritional needs	Course	4		
B2.5 Digestion, metabolism - Metabolism - Inherited metabolic diseases	Course	3		
	<b>Total</b>	<b>78</b>		
<b>BMed2.6 Urogenital system and homeostasis (5 weeks)</b>			<b>Würzner Grégoire</b>	<b>9</b>
B2.6 Urogenital system and homeostasis - Morphological basis - Perineum and genital organs	Course	15		
B2.6 Urogenital system and homeostasis - Morphological basis - Kidneys and upper urinary tract	Course	12		
B2.6 Urogenital system and homeostasis - Glomerular filtration - Physiology	Course	2		
B2.6 Urogenital system and homeostasis - Glomerular filtration - Physiopathology	Course	4		
B2.6 Urogenital system and homeostasis - Tubular exchanges - Physiology	Course	8		
B2.6 Urogenital system and homeostasis - Tubular exchanges - Physiopathology	Course	12		
B2.6 Urogenital system and homeostasis - Glands and hormones - Reproductive hormones	Course	7		
B2.6 Urogenital system and homeostasis - Glands and hormones - Pharmacology	Course	2		
B2.6 Urogenital system and homeostasis - Integration - Physiology	Course	4		
B2.6 Urogenital system and homeostasis - Integration - Physiopathology	Course	8		
B2.6 Urogenital system and homeostasis - Integration - Pharmacology	Course	4		
	<b>Total</b>	<b>78</b>		

## 2nd year Bachelor 2023-2024

Modules and domains	Components	Nb hours	Coordinator	Credits
<b>BMed2.7 MSC - Medical care in the community</b>			<b>Senn Nicolas</b>	<b>1</b>
B2.7 Medicine in private practice	Visite d'observation	5		
B2.7 Visit to socio-medical centers	Visite d'observation	10		
B2.7 Visit to socio-medical centers and Medicine in private practice	Course	2		
B2.7 Team-based learning	Team based learning	4		
	<b>Total</b>	<b>21</b>		
<b>BMed2.8 Clinical skills</b>			<b>Félix Sylvie</b>	<b>3</b>
B2.8 Clinical Skills	Course	1		
B2.8 Clinical Skills - History taking and communication - Theoretical bases	Course	11		
B2.8 Clinical Skills - History taking and communication - Practical bases	Clinical skills seminar	4		
B2.8 Clinical Skills - History taking and communication - Practical bases	Simulation, without SP	2		
B2.8 Clinical Skills - History taking and communication - Application	Simulation, with SP	2		
B2.8 Clinical Skills - Emergencies and resuscitation - Theoretical bases	Course	2		
B2.8 Clinical Skills - Emergencies and resuscitation - Practical bases	Simulation, without SP	4		
B2.8 Clinical Skills - Nervous system - Theoretical bases	Course	2		
B2.8 Clinical Skills - Nervous system - Practical bases	Simulation, without SP	2		
B2.8 Clinical Skills - Nervous system - Application	Simulation, with SP	1		
B2.8 Clinical Skills - Cardio-vascular and respiratory systems - Theoretical bases	Course	2		
B2.8 Clinical Skills - Cardio-vascular and respiratory systems - Practical bases	Simulation, without SP	4		
B2.8 Clinical Skills - Cardio-vascular and respiratory systems - Application	Simulation, with SP	1		
B2.8 Clinical Skills - Digestive system - Theoretical bases	Course	1		
B2.8 Clinical Skills - Digestive system - Practical bases	Simulation, without SP	1		
B2.8 Clinical Skills - Digestive system - Application	Simulation, with SP	1		
B2.8 Clinical Skills - Formative evaluation - Application	Répétitoire	1		
	<b>Total</b>	<b>42</b>		
<b>BMed2.9 Optional courses and Research Design Workshops - Themes to choose from</b>	<b>Course and workshop</b>	<b>19</b>	<b>Regazzi Romano</b>	<b>1</b>
B2.9 Elective courses :				
- Brain cells in action				
- Defining issues and strategies for medicine of population				
- Developmental programming of chronic diseases in a lifecourse perspective				
- From organoids to artificial intelligence: the last discoveries from the MD-PhD students in Lausanne				
- Hip in all its forms				
- Immunobiology				
- Stem cells and their use for medicine				
- The mysteries of sleep				
- Towards predictive medicine: genome, biomarkers and artificial intelligence				
- Transgenic mice as animal model for diseases				
- Understanding and targeting the biology of aging				
B2.9 Research Design Workshops				

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Modules and domains	Components	Nb hours	Coordinator	Credits
<b>BMed2.10 Pratical work</b>			<b>Regazzi Romano</b>	<b>5</b>
B2.10 Pratical work - Cardiovascular and respiratory systems - Anatomy	Practical work	8		
B2.10 Pratical work - Cardiovascular and respiratory systems - Histology	Practical work	4		
B2.10 Pratical work - Cardiovascular and respiratory systems - Physiology	Practical work	2		
B2.10 Pratical work - Cardiovascular and respiratory systems - Radiology	Practical work	2		
B2.10 Pratical work - Digestive system - Anatomy	Practical work	6		
B2.10 Pratical work - Digestive system - Histology	Practical work	4		
B2.10 Pratical work - Digestive system - Radiology	Practical work	2		
B2.10 Pratical work - Endocrine system - Histology	Practical work	2		
B2.10 Pratical work - Immune system - Histology	Practical work	4		
B2.10 Pratical work - Nervous system - Anatomy	Practical work	4		
B2.10 Pratical work - Nervous system - Histology	Practical work	2		
B2.10 Pratical work - Nervous system - Neurosciences	Practical work	7		
B2.10 Pratical work - Nervous System - Radiology	Practical work	2		
B2.10 Pratical work - Transversal Disciplines - Biochemistry	Practical work	24		
B2.10 Pratical work - Transversal Disciplines - Microbiology	Practical work	4		
B2.10 Pratical work - Transversal Disciplines - Pathology	Practical work	3		
B2.10 Pratical work - Transversal Disciplines - Pharmacology	Practical work	5		
B2.10 Pratical work - Urogenital system - Anatomy	Practical work	3		
B2.10 Pratical work - Urogenital system - Histology	Practical work	6		
B2.10 Pratical work - Urogenital system - Radiology	Practical work	2		
	<b>Total</b>	<b>96</b>		