

Overview of courses within the doctoral programmes 2024-2026				Subject to change - next yearly update around April 15 2025								
Search in Fubas for the PDF-file of a course syllabus (use your KI-ID for access)				For information on doctoral programmes, click here .								
Programme	Co-organised with	Full course code	Title of the course	Credits	Level (1-4)	Spring term 2024	Autumn term 2024	Spring term 2025	Autumn term 2025	Spring term 2026	Autumn term 2026	Comments
Aii		K2F2705	Basic Inflammation	3					X			
Aii		K2F3139	Basic Immunology	3		X	X		X		X	
Aii		K8F3187	Basic Immunology	3				X		X		
Aii	CVR	K2F5749	Cytokines in Inflammation	3		X		X		X		
Aii		C6F5652	Pulmonary Inflammation	3				X				
Aii	Neuro	K8F3200	Clinical and Experimental Neuroimmunology	1.5					X			
Aii		C1F3114	Molecular Immunology	3			X		X		X	
Aii	Master's Programme in Biomedicine	H7F3178	Mucosal Immunology	3			X			X		
Aii	Neuro	K8F5252	Psychoneuroimmunology	4.5						X		
Aii		H7F3072	Tissue-specific Immunology	1.5					X			
Aii		H9F5739	Antigen Presentation and T Cell Activation	1.5		X		X		X		
Aii		K2F2186	Generating Genetically Modified Mice for Immunological Research	1.5			X				X	
Aii		K2F2760	Translational medicine in the field of autoimmunity - an overview	3		X					X	
Aii	CVR	K2F3120	Flow Cytometry: from Theory to Application	1.5			X		X		X	Wet lab course
Aii	CVR	K2F5533	Neural Regulation of Inflammation and Metabolism	1.5				X		X		
Aii	CVR	K2F5744	Immunometabolism: A Hands-on Course on a Frontrunning Research Field	1.5						X		
Aii	BIGH	K7F2522	Proteomics by Mass Spectrometry: When and How	3			X		X		X	

Aii	BIGH, DevReg and FoTo	K7F3102	Omics Data Analysis: From Quantitative Data to Biological Information	3	3		X		X		X	
Aii		K8F2348	Functional Fluorescence Microscopy Imaging (fFMI) in Biomedical Research	3			X		X		X	
BiGH		H7F5745	Clinical Immunology in Infectious Diseases	1.5		X		X				
BiGH		C1F2861	Biomedical Ecology - The Microbiota in Health and Disease	1.5		X				X		
BiGH	Master's Programme in Biomedicine	C1F5234	Clinical and Molecular Parasitology and Mycology	1.5					X			
BiGH	Master's Programme in Biomedicine	C4F4215	Clinical and Molecular Bacteriology	1.5			X				X	
BiGH	Master's Programme in Biomedicine	H7F5237	Human Viral Diseases: Mechanisms and Pathogenesis	1.5		X		X		X		
BiGH	Aii	K7F2522	Proteomics by Mass Spectrometry: When and How	3			X		X		X	
BiGH	Aii, FoTo, DevReg	K7F3102	Omics Data Analysis: From Quantitative Data to Biological Information	3	3		X		X		X	
BiGH		K9F2674	Practical Approaches to Qualitative Research - Based on Blended Learning	7.5			X		X		X	
BiGH		K9F2917	Pragmatic Randomised Controlled Trials in Healthcare	4.5		X				X		
BiGH		K9F3032	Mixed Methods: Integration of Qualitative and Quantitative Data within Applied Health Research	3		X		X		X		
BiGH		K9F3185	Core Concepts in Global Health and Global Burden of Disease	3							X	
BiGH		K9F3196	Global Health Economics	3					X		X	
BiGH		K9F5236	Improving Use of Medicine, Focusing on Antibiotics	1.5			X				X	
BiGH		K9F5695	Basic Pharmacoepidemiology and Critical Review of Pharmacoepidemiological Scientific Literature In a Global Context	3					X			
BiGH		K9F5740	Quality Assurance in Research From a Global Perspective	3			X		X		X	
BiGH		K9F6009	Global Sexual and Reproductive Health and Rights: Methods, Concepts and Implications for Policy and Practice	3			X				X	
CBG		C1F3230	Genomics for Biomedical Scientists: Handle your Gene Expression Data	3			X		X		X	
CBG	Master's Programme in Biomedicine	C1F5223	Artificial Intelligence and Machine Learning for Biomedical and Clinical Research	3			X		X		X	

CBG		C1F5626	Basics of Programming for Biomedical and Clinical Research	3		X		X		X		
CBG	Rotating course KI- RBC at UNL, Lincoln, Nebraska USA - MUSC, South Carolina USA - a.o.	C2F2214	Redox Regulation, Oxidative Stress and Selenoproteins	3		X		X		X		
CBG	Rotating summer school KI-Keio-Beida-KCL	C4F6006	Aging and Longevity: from Biology to Social Science	1.5			X					
CBG		TBD	New course (topics for 2025 and 2026 will be decided as soon as possible)						X		X	A new syllabus will be submitted
CBG		C5F3219	Basic Electron Microscoping for Cell Biologists	1.5		X		X		X		
CBG		C6F3127	Human Cell Culture. Methods and Applications	1.5			X		X		X	
CBG	Rotating course KI-RIKEN IMS, Japan	H7F5633	Bioinformatics Analysis and Visualisation of Medical Genomics Data	3			X		X		X	
CBG		K1F2981	Rare Disease Genomics	1.5					X			
CBG		K2F5308	Fundamentals of Statistical Genetics and Data Visualization	1.5		X		X		X		
CVR		C2F3184	Vasculature in Health and Disease - Mechanisms, Models and Targets	1.5				X				Wet lab course
CVR	Neuro	C4F6001	Trauma Science	1.5		X					X	
CVR		D1F5536	Coronary Heart Disease: Present and Future Perspectives in a Pan-Vascular Context	1.5		X				X		
CVR		K1F3191	Sex and Gender Aspects of Clinical Cardio and Cerebrovascular Research	1.5				X				
CVR	Aii	K2F5744	Immunometabolism: A Hands-on Course on a Front-running Research Field	1.5						X		
CVR	Aii	K2F5749	Cytokines in Inflammation	3		X		X		X		
CVR	Master's Programme in Biomedicine	K1F6013	Vascular Cell Biology	3			X		X		X	
CVR		K2F2878	Current advances in atherosclerosis research	1.5					X			
CVR		K2F3113	Endothelial Cell Function and its Relevance in Cardiovascular Disease	1.5			X				X	Wet lab course
CVR	Aii	K2F3120	Flow Cytometry: from Theory to Application	1.5			X		X		X	Wet lab course

CVR	Epi	C6F3132	Cardiovascular Epidemiology	1.5	1			X				
CVR		K2F3133	Cardiovascular Research - an Overview of the Process of Atherosclerosis	1.5		X				X		
CVR		K2F3173	Clinical Trials in Cardiovascular Research	1.5		X		X		X		
CVR		K2F3197	Basic Cardiovaslucar Pathology	1.5					X			
CVR		K2F3238	Thrombosis and Haemostasis, from Mechanisms to Therapies	3			X			X		
CVR	ESC in Italy	K2F5307	Clinical Trials in Heart Failure Research	1.5			X		X		X	
CVR		K2F5310	Diabetes and Cardiovascular Disease	1.5					X			
CVR		K1F5528	Translational Strategies in Cardiovascular Research	1.5				X				
CVR	Aii	K2F5533	Neural Regulation of Inflammation and Metabolism	1.5				X		X		
CVR		K2F5574	Lipid Metabolism and Inflammation in Cardiovascular Disease	1.5				X				
CVR		K2F5651	Practical Skills in Cardiometabolic Research	3				X				Wet lab course
CVR		K2F5678	Current clinical applications of epigenetics in cardiometabolic diseases	1.5						X		
CVR		K2F5690	Age, Ageing and Cardiovascular Health	1.5							X	
DevReg		C5F3107	CNS Injuries and Repair	2			X		X		X	
DevReg		H2F2537	High Throughput Functional Genomic Technologies in Biomedical Research	1.5		X		X		X		
DevReg		H2F2870	Microscopy: Improve your Imaging Skills - from Sample Preparation to Image Analysis	6		X		X		X		
DevReg		H2F2948	Principles of Nucleic Acid Structure	3					X			
DevReg		H2F3047	Understanding and Fighting Disease using Structural Biology	3						X		
DevReg	Master's Programme in Biomedicine	H5F3080	Gene Regulation in the Early Human Embryo	1.5			X		X		X	
DevReg		H5F3089	Cryobiology in Assisted Reproductive Technology	1.5			X				X	
DevReg		H5F3150	Embryology I	1.5			X				X	

DevReg		H5F3175	Extracellular Vesicles: Progress Towards Diagnostics and Therapy	2				X		X		
DevReg	Master's Programme in Biomedicine	H5F5562	Stem Cells and Organoids Models with Focus on Regenerative Medicine	1.5			X	X	X	X	X	
DevReg		H5F5737	Nucleic Acid Chemistry and Therapy	3		X			X			
DevReg		H7F5309	Cancer and Cancer Stem Cells	1.5				X				
DevReg		H9F2291	Clinical Achievements of Reproductive Medicine	1.5			X		X		X	
DevReg		H9F3049	Cellular Signalling	1.5			X		X		X	
DevReg	University of Toronto, Canada	H9F3081	Medical Developmental Biology	1.5			X		X		X	
DevReg		H9F3218	Gene and Cell Therapy Product (ATMP) Drug Development	1.5				X		X		
DevReg		H9F5318	Sex and Gender Perspectives in Biomedical Research	1.5					X		X	
DevReg		K6F5538	The Basics of Skeletal Biology: from Evolutionary Origins to Translational Research	3		X		X				
DevReg		K7F3060	Regenerative Medicine: Principles to Practice	3					X			
DevReg	Aii, BiGH, FoTO	K7F3102	Omics Data Analysis: From Quantitative Data to Biological Information	3	3		X		X		X	
DevReg		TBD	The role of angiogenesis in regeneration: a precision medicine approach	2					X			A new syllabus will be submitted
Epi		C6F3042	Biostatistics I: Introduction for epidemiologists (IMM)	3	1	X		X		X		
Epi		C6F3128	Epidemiology I: Introduction to Epidemiology (IMM)	1.5	1			X			X	
Epi		K9F3078	Epidemiology I: Introduction to Epidemiology (GPH)	1.5	1		X			X		
Epi		C8F3041	Epidemiology I: Introduction to Epidemiology (MEB)	1.5	1	X			X			
Epi	CVR	C6F3132	Cardiovascular Epidemiology	1.5	1			X				
Epi		K9F3143	Introductory Course in SAS Programming	1.5	1		X			X		
Epi		K9F5315	Fundamentals of Stata language	1.5	1		X			X		
Epi		K9F5314	Biostatistics II: Logistic Regression for Epidemiologists (GPH)	1.5	2		X		X		X	

Epi		C8F5519	Biostatistics II: Logistic Regression for Epidemiologists (MEB)	1.5	2	X		X		X		
Epi		C6F3138	Epidemiology II. Design of Epidemiological Studies (IMM)	1.5	2	X	X	X	X	X	X	
Epi		C8F2958	Introduction to R	1.5	2	X		X		X		
Epi		C8F3077	An Introduction to Genetic and Molecular Epidemiology	1.5	2			X			X	
Epi		C8F3155	Infectious Disease Epidemiology	1.5	2			X			X	
Epi	Neuroscience	H1F3131	Application of Epidemiological Methods in Aging Research	1.5	2			X			X	
Epi		C6F3129	Epidemiology III. Analysis and Interpretation of Epidemiological Data	1.5	3	X		X		X		
Epi		C8F2416	Causal Inference for Epidemiologists	1.5	3		X		X		X	
Epi		C6F3046	Causal Inference: Emulating a Target Trial to Assess Comparative Effectiveness	1.5	3	X				X		
Epi		C6F5649	Transporting Treatment Effects from Randomized Trials to Target Populations	1.5	3			X				
Epi		C8F2798	Applied Longitudinal Data Analysis	2.5	3				X			
Epi		C8F2992	Biostatistics III: Survival Analysis for Epidemiologists (using R)	1.5	3		X		X		X	
Epi		C8F3142	Biostatistics III: Survival Analysis for Epidemiologists (using Stata)	1.5	3	X		X		X		
Epi		K2F2868	Advanced Course in SAS Programming for Health Care Data	1.5	3			X			X	
Epi		K9F5316	Fundamentals of Using Python in Health Related Research	1.5	3				X			
Epi		C6F2959	Fundamentals of Statistical Modeling	1.5	4	X		X		X		
Epi		C8F2893	Design and Analysis of Twin and Family-based Studies	1.5	4			X			X	
Epi		C8F5577	Extensions to the Design and Analysis of Controlled Epidemiological Studies	1.5	4		X			X		
Epi		C8F5694	Multivariate Prediction Models, Machine Learning and AI with Applications in Precision Medicine	1.5	4				X		X	
Epi		TBD	Advanced biostatistical methods (Advanced Survival analysis?) - workshop/new course	1.5	4							
Epi		TBD	Advanced methodologies for causal inference in longitudinal data - workshop/workshop	1.5	4				X			

Epi		TBD	Causal inference with competing events - workshop/new course	1.5	4					X		
FoTO		C1F2919	Precision cancer medicine	1.5				X				
FoTO		C1F3024	Advanced cancer biology	3		X	X	X	X	X	X	
FoTO		C1F3076	Cancer Cell Metabolism	1.5					X			
FoTO		C1F5636	Microbiota and Cancer	1.5				X				
FoTO		C2F5557	Genome Instability in Cancer Development and Therapy	1.5		X				X		
FoTO		C5F3026	Cell Cycle, Cancer and Anti-Cancer Targets	1.5				X				
FoTO		C8F5534	Clinical Cancer Genomics	1.5				X		X		
FoTO	Master's Programme in Biomedicine	H9F5520	Incurable Cancers	1.5			X				X	
FoTO		H5F2987	Preclinical Imaging Techniques	1.5		X						
FoTO	Master's Programme in Biomedicine	H7F5309	Cancer Stem Cells	1.5			X			X		
FoTO		K1F3151	Inherited Cancer Syndromes; Genes Predisposing to Malignant Disease	1.5				X				
FoTO		K6F3022	Translational Paediatric Oncology in the Era of Immunotherapy and Omics	1.5		X				X		
FoTO		K6F5625	Radiotherapy: Our Invisible Ally Against Cancer	1.5				X				
FoTO	Aii, BiGH, DevReg	K7F3102	Omics Data Analysis: From Quantitative Data to Biological Information	3	3		X		X		X	
FoTO		K7F3110	Tumor Immunology and Immune Therapy of Cancer	1.5			X		X		X	
FoTO	Master's Programme in Biomedicine	K7F3112	Basic Course in Tumor Biology and Oncology	3			X		X		X	
FoTO	Master's Programme in Biomedicine	K7F5232	Tumor Microenvironment	1.5			X		X		X	
FoTO		K7F5275	Basic Tumor Histopathology	1.5				X		X		
FoTO		K7F5505	Clinical Oncology for Pre-clinical Doctoral Students	1.5		X		X		X		
FoTO	Master's Programme in Biomedicine	K7F5541	Overview course in Cancer Drug Discovery	1.5			X		X		X	

MetEndo	Master's Programme in Biomedicine	C3F3157	Mechanisms of Gene Regulation in Metabolism	1.5			X		X		X	
MetEndo	Master's Programme in Biomedicine	K1F3121	Experimental Techniques in Study of Metabolic and Endocrine Disorders	1.5			X		X		X	
Neuroscience		H1F5539	Alzheimer's Disease: Clinical Features and Pathogenic Mechanisms	1.5				X				
Neuroscience	BSc-programme in Biomedicine	C4F3220	Basic Human Neuroscience	10			X		X		X	The course does not give regular course credits for doctoral
Neuroscience		C4F5239	Behavioal Analysis in Rodents: Classic and Novel Approaches	1.5				X				
Neuroscience	Master's Programme in Biomedicine	C4F2624	Brain Circuits	1.5			X		X		X	
Neuroscience	Aii	K8F3200	Clinical and Experimental Neuroimmunology	1.5					X			
Neuroscience		K8F5287	Clinical Research in Child and Adolescent Psychiatry: Methods and Practice	1.5			X				X	
Neuroscience		TBD	Cognitive aging, neuropsychology and cognitive diagnostics	1.5				X				New syllabus will be submitted
Neuroscience		K6F5255	Early Child Development: Extended Interactions Between Neural Networks, Body and Environment	1.5		X		X		X		
Neuroscience	Master's Programme in Biomedicine	C4F5573	Functional Cognitive Neuroanatomy	1.5			X		X		X	
Neuroscience		K8F5522	Imaging in Neuroscience: with a Focus on Functional Magnetic Resonance Imaging Methods	1.5					X			
Neuroscience	GIH.se	H1F6004	Imaging in Neuroscience: with a Focus on Functional Near Infrared Spectroscopy (fNIRS)	1.5			X				X	
Neuroscience		K8F3035	Imaging in neuroscience: with a focus on MEG and EEG methods	1.5		X				X		
Neuroscience		H1F3064	Imaging in Neuroscience: with a Focus on Structural MRI Methods	1.5			X				X	
Neuroscience		H1F2846	Integration of Neuroimaging and Cognition in Normal Aging and Dementia	1.5						X		
Neuroscience		K8F5685	Introduction to Image Processing Using MATLAB: with a Focus on Neuroscience	1.5			X		X		X	
Neuroscience		H1F5569	Linear Regression Analysis in Neuroscience: Model Choice, Implementation, Analysis Errors and	3		X				X		
Neuroscience		K8F5595	Nervous System Injury and Repair	1.5		X		X		X		

Neuroscience		K8F5697	Network Neuroscience	1.5					X			
Neuroscience	Master's Programme in Biomedicine	H1F5572	Neurodegenerative Disorders I: Genes, Mechanisms and Clinical Aspects	1.5			X		X		X	
Neuroscience		H1F2630	Neurodegenerative Disorders II - Cellular and Molecular Mechanisms	1.5			X				X	
Neuroscience		K8F2526	Neuropsychopharmacology	1.5		X				X		
Neuroscience		K8F2362	Positron Emission Tomography Imaging of the CNS	1.5				X				
Neuroscience		H2F5561	Protein structure, function and disease	3					X			
Neuroscience		H1F5767	Psychedelic Science - Past, Present and Future	1.5						X		
Neuroscience		K8F5676	Psychological Models of Psilocybin Drug Administration	1.5					X			
Neuroscience	Aii	K8F5252	Psychoneuroimmunology	4.5						X		
Neuroscience		K8F5684	Sensory Perception in Clinical and Practice and Research	1.5			X		X		X	
Neuroscience		K8F5216	Stress, Sleep and Health	3			X				X	
Neuroscience	Master's Programme in Biomedicine	C2F2780	The Developing Brain	1.5			X		X		X	
Neuroscience		C4F5677	The Interplay Between Neuro-Infections and Neurodegenerative Diseases	3				X				
Neuroscience		K8F5639	The Science of the Placebo Effect	1.5						X		
Neuroscience		K8F3193	The Vascular Brain	1.5		X				X		
Neuroscience		TBD	Translational neuroscience of addiction	3				X				New syllabus will be submitted
Neuroscience	CVR	C4F6001	Trauma Science	1.5		X					X	
PHSP		K9F2928	Public Health Research - Concepts and Theories	3				X				Every other year
PHSP		C6F5540	Implementation Research in Health	5		X				X		Every other year
PHSP		H1F5688	Societal and Life-course Perspectives on Inequalities in Aging	3					X			Every other year
PHSP		K9F5320	Global Mental Health	3					X			Every other year

PHSP		K9F5321	Health Policy and Management	3				X				Every other year
PHSP		K9F5693	Inequalities in Health – Mechanisms and Measurement	3						X		Every other year (new course)
PHSP		K9F5743	Fundamentals of Quality Assurance in Medical Science and Public Health Research	1.5		X		X		X		Every other year (new course)
PHSP		K9F6010	Migration and health	2			X				X	Every other year
PHSP		K9F6011	Data Management in Survey Design	2			X		X		X	Every year
Puf-V		C7F2609	Basic Course in Medical Statistics - a distance course	3		X	X			X		for the Research School in Health Science
Puf-V	Research school MoF-V	C7F3181	Introduction to Teaching and Learning in Higher Education	1.5					X			
Puf-V		C7F5301	Methods for Design and Formative Evaluation of eHealth Interventions	3				X			X	for the Research School in Health Science
Puf-V		C7F5302	Information Literacy, Philosophy of Science and Research Ethics	3					X			for the Research School in Health Science
Puf-V		C7F5506	Research Communication in Health Science	1.5		X				X		for the Research School in Health Science
Puf-V		C7F5725	Introduction to Medical Education Research	4.5		X				X		
Puf-V		H1F2664	Introduction to Modern Test Theory and Test/Survey Methodology	4					X			for the Research School in Health Science
Puf-V		H1F2673	Introduction to Qualitative Methods	4		X	X	X		X		for the Research School in Health Science
Puf-V		H1F2688	Multi-Disciplinary Perspectives on Active Ageing Research <i>(will get new syllabus)</i>	3					X			
Puf-V		H1F2693	Measuring Physical Activity with Focus on Wearable Monitors - Applications for Clinical and Epidemiological Studies	3			X					
Puf-V		H1F3029	Observation and Visual Methods in Health Care Sciences Research	4.5			X				X	for the Research School in Health Science
Puf-V	Open Lab	H1F3180	Bridging Science and Societal Needs Through Design Thinking	4		X						
Puf-V		H1F3232	Developing and Evaluating Complex Interventions: Effective Implementation	3			X	X			X	for the Research School in Health Science
Puf-V		H1F5222	Preventing Illness or Promoting Health: Concepts and Illustrations from Healthcare Science Perspectives	1.5		X				X		
Puf-V		H1F5249	Implementation Science – Implementation Leadership in Healthcare and Social Services	5			X			X		

Puf-V		H1F5294	Health Science and Implementation: Conceptual Foundations	2					X			for the Research School in Health Science
Puf-V		H1F5555	Methods for Systematic Review, from Idea to Project Plan <i>(Part 1)</i>	4.5			X				X	for the Research School in Health Science
Puf-V		H1F5556	Methods for Systematic Review, from Project Plan to Report <i>(Part 2)</i>	3				X				
Puf-V		H1F5585	Construction and Validation of Measurement in Behavioral Science	4.5					X			
Puf-V	Research school MoF-V	H1F5741	Healthcare Science and Care Sciences: Conceptual Foundations	1.5		X						
Puf-V		K6F6008	Methods for Thematic and Qualitative Content Analysis	3			X				X	
Puf-V		K8F2520	Interview Techniques in Health and Care Research	4		X		X		X		for the Research School in Health Science
Puf-V		K9F6005	Sustainable Health and the 2030 Agenda	2			X		X		X	
Puf-V		TBD	Introduction to mixed-methods in care sciences (new)	3					X			