Pharmacy

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
284015.0	Laboratory works in pharmaceutical sciences	5		Advanced	3, 4
284013.0	Pharmaceutical Nanotechnology	5	One-week intensive course	Advanced	
280072.0	Farmaceutiska analysmetoder / Methods in pharmaceutical analysis	5		Advanced	
	Principles of Drug Discovery and Development (UTU)	5	Univeristy of Turku		
	(Företagspresentationer och besök, 2 sp)	2			
284017.0	Advanced laboratory course in pharmaceutical sciences	10		Advanced	

Cell and Molecular Bioscience

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
222052.0	Bioimaging and microscopy	5			2
222054.0	Histology and histopathology	5		Intermediate	4
212021.0	Structural biology	5		Intermediate	4
212023.0	Applied Bioinformatics	5			1,2

Cellbiology (Master level)

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
222056.0	Laboratory internship	5		Intermediate	
223094.0	Laboratory internship	5		Advanced	
222010.0	Försöksdjurshantering		at the University of Turku	Intermediate	
CB0008	Model organisms in biological research	5			4
223011.0	Seminar in cell biology	4		Advanced	3,4
223990.0	Plan for master's thesis	3		Advanced	
223994.0	Literature examination (Final Exam in Cell Biology)	8		Advanced	
223996.0	Pro Gradu (Cell Biology) (Master's thesis)	40		Advanced	
223001.0	Stem cells	5			4
xxxxxxx.x	Regeneration	5			
223016.0	Utvecklingsbiologi / Developmental biology	5	Contact the teacher	Advanced	
283007.0	Cell signaling	10		Advanced	1
223068.0	Structure and function of the cytoskeleton	10		Advanced	3
223038.0	Advanced microscopy	5		Advanced	1
222052.0	Bioimaging and microscopy	5		Advanced	2
222054.0	Histology and histopahtology	5		Advanced	3,4
221008.0	Laboratory basics			Advanced	1
CB0008	Model organisms in biological research	5		Advanced	4

Biochemistry

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
213031.0	Computer aided drug design	5		Advanced	4
BK00BM50	Protein structures and structural bioinformatics	5			4
BK00BM51	Protein function at cellular level	5			2
BK00BM60	Enzyme and protein chemistry	5			3
BK00BM59	Lipid biochemistry	5			4
BK00BM58	Physical biochemistry	5			3
BK00BM56	Structure of biological membranes (self-study)	5			
	Thematic module:				
BK00BM45-48	Molecular biology (UTU)	10			
	Cell signalling	10			
	Laboratory rotation module:				
BK00BM54	Laboratory rotation I	10			
BK00BM55	Laboratory rotation II	10			
	Thesis module:				
BK00BM53	Research plan for pro gradu	5			
BK00BM52	Research seminars, research ethics	5			
	Self-study courses (optional studies):				
212006.0	Microbiology (self study)	5		Intermediate	1, 2, 3, 4
213030.0	Glycobiology (self study)	5		Advanced	1, 2, 3, 4
	Pharmaceutical bioinformatics	8		Advanced	
BK00BM61	Fluorescence spectroscopy (self study)	10			1, 2, 3, 4
	Lipid metabolism (self study)	5			1, 2, 3, 4

Environmental and Marine Biology

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
MM00BNOO	Behavioural ecology				1,2
223009.0	Evolution (evolutik)		Literature studies		1, 2, 3, 4
223025.0	Biogeography		Literature studies		1, 2, 3, 4
222042.1	Oceanography: from biology to environmental issues, part 1		Literature studies		1, 2, 3, 4
222042.2	Oceanography: from biology to environmental issues, part 2		Literature studies		1, 2, 3, 4

Master's degree programme in biomedical imaging

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
	All courses				

Physics

Course code	Course name	Credits Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
232017.0	Introduction to Biophysics	5	Basic	1
233050.0	Biophysics 1	5	Advanced	3

Chemistry

Course code	Course name	Credits Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
KE00BD55	Introduction to materials chemistry			1
FK00BM74	Advanced colloid chemistry			1
FK00BD77	Thermodynamics and change			2
AK00BL19	Chemical sensors and biosensors			2
FK00BD81	Ideal and heterogeneous surfaces			4
263104.0	Colloidal Sol-Gel Processing of Nanomaterials			3
	Functional materials at biological interfaces			

Mathematics

Course code	Course name	Credits Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
273023.0	Markov Chains			1
273019.0	Poisson Processes			3
	Financial Mathematics			4
	Financial Mathematics II			
	Contact Professor Mikael Lindström if additional courses are needed			

Geology

Course code	Course name	Credits Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
243032.0	Magmatic processes		Advanced	1
243027.0	The Bedrock of Fennoscandia		Advanced	3
243034.0	Thematic petrology		Advanced	3
243037.0	Environmental geochemistry of sulphur and metals		Advanced	1
243038.0	Geophysics	Intensive two-week course	Advanced	2

Chemical and Process Engineering

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
411504.0	Process Plant Design				1
416511.0	Biorefinery - Application of Chemical Engineering Principles				4 (to be confirmed)
NM00BK78	Biomaterials and health				2
PF00BK79	Introduction to Rheology		Intensive course		4
415802.0	Chemistry of interfaces for fibre based materials				3, 4
423510.0	Current research in renewable materials chemistry				3
423805.0	Modern analytical tools for pulp and paper		Intensive course		2
423102.0	Wood and Paper Chemistry				1
415312.0	Fibre Technology				2
TR00BL71	Wood Extractives in Pulping, Papermaking, and Biorefinary		Intensive course		2
424511.0	Evolutionary Algorithms				3, 4
424519.0	Refrigeration				2
424512.0	Introdcution to Computational Fluid Dynamics				1
411535.0	Laboratory practice in Process design and systems Engineering I				4
424520.0	Advanced process thermodynamics				4
411116.0	Basics in Process design				1
411302.0	Special Work in Process Engineering		Contact the responsible Professor		1, 2, 3, 4
414303.0	Project Management				3
PF00BK81	Printing Technology				4
PF00BK77	Paper Coating and Converting Technology				3
FC00BD69	Biomass pretreatments and fractionation technology				1
414307.0	Industrial marketing and sales				2
414505.0	Business models and ecosystems				2
414506.0	Industrial project business				4
421100.0	Principles of Chemical Reaction Engineering				1
421300.0	Heterogenous Catalysis				3

Information Technology (Master level)

Course code	Course name	Credits	Type, comment	Level	Period (1, 2 = autumn; 3, 4 = spring term)
451000.0	Project course			Advanced	1-3 (w. 36-11)
	Experimentation in computer science and engineering			Advanced	1
456309.0	Specification Methods			Advanced	2
	Master thesis seminar			Advanced	1, 2
DV00BN93	Introduction to computational systems biology			Advanced	1
NEW	Computational modeling: theory and practice		ONLINE COURSE	Advanced	
456517.0	Introduction to data science		ONLINE COURSE	Advanced	
	Data Analysis with Visual Basic		ONLINE COURSE	Advanced	
452501.0	Development of Web Services			Advanced	1
452503.0	Development of interactive web applications			Advanced	2
	Computational modelling: methods and applications			Advanced	
456406.0	Advanced text algorithms			Advanced	2
DT00BQ86	Analytics for Industrial Internet			Advanced	1
453101.0	Wireless digital communication			Advanced	2
455303.0	Parallel programming			Advanced	2
DT00BQ89	Multidimensional sensing techniques			Advanced	1
	Machine learning		ONLINE COURSE	Advanced	
	Data analytics software		ONLINE COURSE	Advanced	
453507.0	System Architecture of IoT			Advanced	3
DT00BR71	GPU Programming			Advanced	3
456501.0	Software Safety			Advanced	3
	Real-time Systems		ONLINE COURSE	Advanced	
456512.0	Advanced Course on Databases/Databaser 2			Advanced	4
451502.0	Cloud Computing			Advanced	4
DV00BO00	Autonomic Software and Systems			Advanced	4