

Course offer for incoming Erasmus students

Bachelor of Sciences at Hasselt University (2nd semester, academic year 2021-22)

Component \ Discipline		BIOLOGY		CHEMISTRY		COMPUTER SCIENCE		MATHEMATICS		PHYSICS	
		Contact : prof. dr. Ann Cuypers		Contact : prof. dr. Dirk Vanderzande		Contact : prof. dr. Fabian Di Fiore		Contact : prof. dr. Roel Braekers		Contact : prof. dr. Bart Cleuren	
		Course name	ECTS	Course name	ECTS	Course name	ECTS	Course name	ECTS	Course name	ECTS
Compulsory course for all students		International Interdisciplinary Project (Ba)	3	International Interdisciplinary Project (Ba)	3	International Interdisciplinary Project (Ba)	3	International Interdisciplinary Project (Ba)	3	International Interdisciplinary Project (Ba)	3
Discipline-related courses and projects (volume: minimal 10 ECTS SP)	Courses	Biodiversity Exploration (Ba BIO)	5	Colloid Chemistry (Ba CHEM)	3	Information Visualisation (Ma CS)	6	Discrete and Continuous Dynamical Systems (Ba MATH)	5	Soft Condensed Matter (Ba PHYS)	3
		Molecular Developmental Biology (Ba BIO)	5	Polymeric Materials (Ba CHEM)	3	Technologies and Tools for Interactive Systems Development (Ma CS, taught in Dutch, English course materials)	6	Functional & Fourier Analysis (Ba MATH)	6	Nuclei and particles (Ba PHYS)	6
		Bio-indicators (1Ma BMS-EHS)	3	Functional Polymers for Advanced Applications (1Ma BMS-EHS)	3	Database System Architecture (Ma CS)	6	Numerical Methods 3 (Ba MATH)	5	Photonics and Quantum Technology (Ba PHYS)	5
		Environmental Ethics (1Ma BMS-EHS)	3	Nanomedicine (1Ma BMS-EHS)	4	Computer Animation and Simulation (Ma CS)	6	Partial Differential Equations (Ba MATH)	5	Quantum Physics in Biology (Ba PHYS)	5
		Environmental Chemistry (1 Ma BMS-EHS)	3	Environmental Chemistry (1 Ma BMS-EHS)	3	Computational Complexity (Ma CS)	6	Concepts of Bioinformatics (1 Ma STATS)	4	Discrete and Continuous Dynamical Systems (Ba MATH)	5
							6	Introduction to Bayesian Inference (1 Ma STAT & DS)	4	Functional & Fourier Analysis (Ba MATH)	6
	Projects	Research Project (Ba BIO)	10	Research Project Material Chemistry (Ba CHEM)	15	Research Project (BA CS)	10	Research Project (Ba MATH)	10	Research Project (Ba PHYS)	9
				Research Project Biochemistry (Ba CHEM)	10						
	Broadening courses *		Introduction to Bayesian Inference (1 Ma STAT & DS)	4	Introduction to Bayesian Inference (1 Ma STAT & DS)	4	Introduction to Bayesian Inference (1 Ma STAT & DS)	4	Visualisation in Data Science (1 Ma STAT&DS)	4	Introduction to Bayesian Inference (1 Ma STAT & DS)
Visualisation in Data Science (1 Ma STAT&DS)			4	Visualisation in Data Science (1 Ma STAT&DS)	4					Visualisation in Data Science (1 Ma STAT&DS)	4

* The broadening courses require some foreknowledge or skill in the area of the course:

- Introduction to Bayesian Inference : the student should at least be familiar with concepts of distributions, conditional probability distributions, likelihood and summary statistics (moments) of probability distributions
- Visualisation in Data Science: the student needs to have acquired some computer programming experience through an initial programming course at the home university, preferably in Python. Knowledge of JavaScript is considered beneficial.

NOTES :

- All courses in this overview will be taught in English, unless explicitly mentioned otherwise. Most course names hyperlinked to the [study guide of Hasselt University](#), where more information on the course can be found. All programs are conditional to changes. For more information: do contact the departmental coordinator (see above) or [Peter Vandoren](#).
- The 2nd semester of the academic year 2021-22 starts on Monday February 14 2022 and ends on July 6 2022 (including exam period).