

Course offer* for incoming Erasmus students

Bachelor of Sciences at Hasselt University (2nd semester, academic year 2024-25)

Course \ Department		BIOLOGY		CHEMISTRY		COMPUTER SCIENCE		MATHEMATICS		PHYSICS	
		Contact : prof. dr. Ann Cuypers		Contact : prof. dr. An Hardy		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	Courses	Biodiversity Exploration (Ba BIO)	5	Polymeric Materials (Ba CHEM)	3	Information Visualisation (Ma CS)	6	Functional & Fourier Analysis (Ba MATH)	5	Soft Condensed Matter (Ba PHYS)	3
		Molecular Developmental Biology (Ba BIO)	5	Biochemical pathways (Ba CHEM)	5	Advanced Database Technology (Ma CS)	6	Partial Differential Equations (Ba MATH)	5	Nuclei and particles (Ba PHYS)	6
		Parasitology and One Health (Ba BIO)	3/5	Molecular Developmental Biology (Ba CHEM)	5	Machine Learning (incl. Deep Learning) (Ma CS)	6	Numerical Methods 3 (Ba MATH)	5	Photonics and Quantum Technology (Ba PHYS)	5
		Ecology: organisms and their environment (Ba BIO)	8	Environmental Chemistry (1 Ma BMS-EHS)	3	Technologies and Tools for Interactive Systems Development (Ma CS)	6	Nonparametric methods (1 Ma STATS & DS)	4	Quantum Effects in Biology (Ba PHYS)	5
		Biochemical pathways (Ba BIO)	5	Functional Polymers for Advanced Applications (1Ma BMS-EHS)	3	Designing Interactive Systems (Ba CS)	6	Concepts of Bioinformatics (1 Ma STATS & DS)	4	Functional & Fourier Analysis (Ba MATH)	5
		Environmental Ethics (1Ma BMS-EHS)	3	Soft Condensed Matter (Ba PHYS)	3	Operating Systems (Ba CS, taught in Dutch, English course materials)	7	Introduction to Bayesian Inference (1 Ma STAT & DS)	4	Advanced Light Microscopy (1Ma BMS-BEN/EHS)	4
		Bioindicators (1Ma BMS-EHS)	3	Nanomedicine (1Ma BMS-BEN/EHS)	4	Advanced Programming in Python (1 Ma STAT & DS)	5	Visualisation in Data Science (1 Ma STAT&DS)	4		
		Environmental Chemistry (1 Ma BMS-EHS)	3	Advanced Light Microscopy (1Ma BMS-BEN/EHS)	4	Visualisation in Data Science (1 Ma STAT&DS)	4	Topics in Numerical Analysis (Ba MATH)	5		
	Projects	Final Bachelor Project (Ba BIO)	10	Final Bachelor Project Material Chemistry (Ba CHEM)	12	Final Bachelor Project (BA CS)	10	Final Bachelor Project (Ba MATH)	10	Final Bachelor Project (Ba PHYS)	9
				Final Bachelor Project Biochemistry (Ba CHEM)	12						
Other courses **		Visualisation in Data Science (1 Ma STAT&DS)	4	Visualisation in Data Science (1 Ma STAT&DS)	4	Artificial Neural Networks and Deep Learning (2 Ma Stats & DS)	4			Visualisation in Data Science (1 Ma STAT&DS)	4

*The course offer is subject to changes.

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

- 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.
- Artificial Neural Networks and Deep Learning: the student needs to successfully taken a course on machine learning and needs to have substantial knowledge of statistics.

NOTES :

- All courses in this overview will be taught in English, unless explicitly mentioned otherwise. Most course names are hyperlinked to the [study guide of Hasselt University](#), where more information on the course can be found. **Carefully check whether you meet the course foreknowledge requirements, described in the study guide, before selecting a course in your exchange study programme.** For more information: do contact the departmental coordinator (see above) or the administrative coordinator [Peter Vandoren](#).
- The 2nd semester of the academic year 2024-25 starts on Monday February 10 2025 and ends on June 28 2025 (including exam period).