

Code	Course unit name	Scope (cr)	Period	Languages	Form of teaching / Method of completion	Quota for open uni / target group	Open to exchange students	Open to students of other degree programmes	Additional info on target groups
MMB-101	MSc thesis seminar in microbiology and microbial biotechnology	3 op	Throughout all periods.	English (also opportunity to present in Finnish)	distance teaching (time-bound)	-	no	no	-
MMB-114	Exploratory microbial research - lab course	15 op	1-2. period	English	contact teaching	-	no	no	Primarily MMB students.
MMB-118	Metabolic engineering - lab course	5 op	3. period	English	contact teaching	-	no	if places are available	Primarily MMB students, secondarily GMB students specializing in biochemistry
MMB-119	Microbial genetics - lab course	5 op	3. period	English	contact teaching	-	no	if places are available	Primarily MMB students
MMB-201	Microbial ecology	5 op	3. period	English	includes both contact and distance teaching (aka, blended teaching)	-	yes	yes	-
MMB-302	Food and environmental hygiene and control	5 op	2. period	English	contact teaching	-	yes	yes	MMB and Food science students
MMB-303	Food microbiology - lab course	5 op	4. period	English	contact teaching	-	no	if places are available	MMB students and Food master students
MMB-401	Seminar in evolution of microbial pathogenesis	5 op	2. period	English	contact teaching	3	yes	yes	Primarily Microbiology and Microbial Biotechnology master students. Secondarily exchange students, if there is space on the course and the student has appropriate previous studies.
MMB-403	Seminar in molecular microbiology	5 op	3. period	English	contact teaching	-	yes	yes	Primarily Microbiology and Microbial Biotechnology master students. Secondarily Genetics and Molecular Biosciences master students, Molecular Biosciences and Biology bachelor students as well as exchange students, if there is space on the course and the student has appropriate previous studies. Recommended for completion primarily in the 1st year of master studies or secondarily 3rd year of bachelor studies
MMB-405	Clinical microbiology - Laboratory course (in Finnish)	5 op	4. period	Finnish	contact teaching	-	no	yes	Primarily MMB students, also available to students from GMB, MOLE and Biology, if there is space. Recommended: master studies 1st year.
MMB-406	Bacteria-host interactions - laboratory course	5 op	1-2. period	English	contact teaching	-	no	yes	Primarily Microbiology and Microbial Biotechnology master students, secondarily Genetics and Molecular Biosciences master students.
MMB-503	Microbial biotechnology - lectures & seminar	5 op	1. period	English	contact teaching	-	no	yes	Primarily Microbiology and Microbial Biotechnology master students.
MMB-504	Microbial Genetics and Evolution - lecture course	5 op	4. period	English	contact teaching	-	yes	yes	-
MMB-505	Principles of RNA Biology	5 op	1. period	English	contact teaching	-	yes	yes	Primarily Microbiology and Microbial Biotechnology master students. Secondarily Genetics and Molecular Biosciences master students, PhD students, Molecular Biosciences and Biology bachelor students, and exchange students; provided there is space on the course and the student fulfills prerequisite requirements.
MMB-601	Fungi in sustainable biotechnology on renewable natural resources	5 op	4. period	English	contact teaching	-	yes	yes	Primarily Microbiology and Microbial Biotechnology master students. Secondarily to other Master's programme students and 3-4 year Bachelor's programme students.
MMB-803	Virological tools - lab course	5 op	3. period	English	contact teaching	-	no	yes	Primarily Microbiology and Microbial Biotechnology master students. Priority given to MMB-900 module students
MMB-805	Viruses lectures	5 op	3. period	English	contact teaching	-	yes	yes	-
MMB-901	Microbial Metagenomics	5 op	2. period	English	contact teaching	-	yes	yes	Primarily Microbiology and Microbial Biotechnology master students. Priority given to MMB-800 module students
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MMB-102	Literature examination for MSc	7 - 10 op	Throughout the periods	English	Moodle examination / take-home exam (Per)	-	no	-	-
MMB-103	Master's Thesis	30 op	around the year	Finnish, Swedish, English	other independent work	-	no	-	-
MMB-105	Block literature examination	5 op	around the year	English	take-home exam	-	no	-	-
MMB-106	Teaching practice	1 - 10 op	any time	Finnish, Swedish, English	teaching and discussion with the responsible teacher	-	no	-	-
MMB-107	Advanced bacteriology project in a research group	10 - 12 op	any time	Finnish, Swedish, English	Report	-	no	-	-
MMB-108	Practical training and report	5 op	any time	Finnish, Swedish, English	Report	-	no	-	-
MMB-109	Advanced biotechnology project in a research group	10 - 12 op	The schedule of the course is agreed	Finnish, Swedish, English	other independent work - research plan, laboratory notebook and report	-	no	-	-
MMB-110	Advanced environmental microbiology project in a research group	10 - 12 op	any time	Finnish, Swedish, English	Report	-	no	-	-
MMB-111	Advanced food microbiology project in a research group	10 - 12 op	any time	Finnish, Swedish, English	Report	-	no	-	-
MMB-112	Advanced mycology project in a research group	10 - 12 op	any time	Finnish, Swedish, English	research plan, laboratory note book and report	-	no	-	-
MMB-113	Advanced virology project in a research group	10 - 12 op	The schedule of the course is agreed with the teacher	Finnish, Swedish, English	research plan, laboratory note book and report	-	no	-	-
MMB-125	Advanced microbial bioinformatics project in a research group	10 - 12 op	agreed with the teacher	Finnish, Swedish, English	research project and report	-	no	-	-
MMB-301	Food Microbiology - literature examination	5 op	agreed with the teacher	English	take-home exam	-	no	-	-