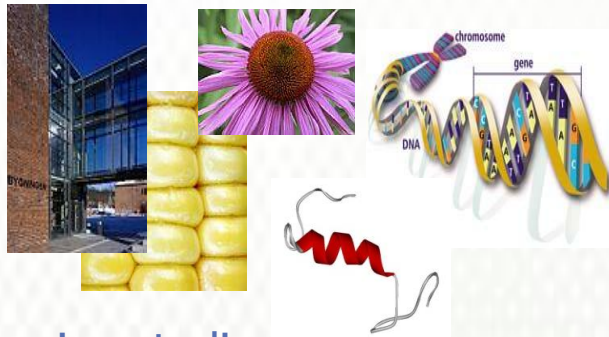


STUDY PLANS BSc- AND MSc STUDIES

DEPT OF CHEMISTRY, BIOTECHNOLOGY AND
FOOD SCIENCES



- Norwegian studies
 - BSc in Biotechnology
 - Specialisation Molecular Biology p 2
 - Specialisation Biochemistry p 2
 - Specialisation Bioinformatics p 3

- English studies
 - MSc in Microbiology p 4
 - MSc in Bioinformatics and Applied Statistics
 - Specialisation Bioinformatics p 5
 - Specialisation Applied Statistics p 6

2011 / 2012

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NORWEGIAN STUDY:

Year/sem.		Bachelor of Science in Biotechnology, molecular biology specialisation						
3rd	June	BIO211					5	
	Spring	BIN210	BIO230	BIO231**			20-25	
	January	STAT200						
	Autumn	BIO210	KJM211	BIO232			10	
	August	STAT250						
2nd	June							
	Spring	KJB200	KJB210	BIO220	BOT100		25	
	January	HFM200*					5	
	Autumn	KJM110	BIO130	STAT100	PHI201		25	
	August	KJM110						
1st	June							
	Spring	KJM100	BIO120	BIO121	FYS100		30	
	January							
	Autumn	MATH100	PHI100	BIO100	HFE100		25	
	August	BIO101					5	
Credits		5	5	5	5	5	5	150-155

Mandatory, biotechnology
Mandatory, molecular biology specialisation
** Mandatory if master studies in microbiology
White fill = electable courses coordinated with mandatory courses
*Alternatively BIO220 or GEN220

NORWEGIAN STUDY:

År/sem.		Bachelor of Science in Biotechnology, biochemistry specialisation						
3rd	June	BIO211					5	
	Spring	BIN210	BIO230	BIO231**			20-25	
	January	STAT200						
	Autumn	BIO210	STAT100	BIO232			20	
	August							
2nd	June							
	Spring	KJB200	KJB210	KJM230			30	
	January	HFM200*					5	
	Autumn	KJM210		BIO130	PHI201		25	
	August	KJM210						
1st	June							
	Spring	KJM100	BIO120	BIO121	FYS100 ^{††}		30	
	January							
	Autumn	MATH100	PHI100	BIO100	HFE100		25	
	August	BIO101					5	
Credits		5	5	5	5	5	5	165-170

Mandatory, biotechnology
Mandatory, biochemistry specialisation
** Mandatory if master studies in microbiology
White fill = electable courses coordinated with mandatory courses
*Alternatively BIO220 or GEN220

NORWEGIAN STUDY:

Year/sem.		Bachelor of Science in Biotechnology, bioinformatics specialisation						
3rd	June	BIO211						
	Spring	BIN210		BIO220*				10
	January	INF200***						
	Autumn	BIO210		INF200***		MATH131		25
	August	STAT250						5
2n	June							
	Spring	KJB200		BIO120	BIO121	KJB210		15
	January	STAT200						
	Autumn	KJM110		BIO130	INF130			15
	August	STAT210						5
1st	June							
	Spring	KJM100		STAT100		INF120		30
	January							
	Autumn	MATH111		PHI100		BIO100	INF100	25
	August	BIO101						5
Credits		5	5	5	5	5	5	140

Mandatory, biotechnology
Mandatory, bioinformatics specialisation
White fill = electable courses coordinated with mandatory courses

*Alternatively HFM200 or GEN220

***10 credit course divided between autumn and January block

NB! Admission to the MSc program in Microbiology provides a *Bachelor's Degree in Biotechnology, Biotechnology or Biochemistry specialisation* (or equivalent). Details in page 2.

ENGLISH STUDY:

Master of Science in Microbiology								
2	June	SPESI*					5*	
	Spring	MSc thesis						25
	January	MSc thesis						5
	Autumn	MSc thesis						25
	August	MSc thesis						5
1	June							
	Spring	BIO332	BIO330	LNG240			5-15	
	January	BIO332						5
	Autumn	BIO333**		MVI322		KJB310	0-10	
	August	MVI321						
Credits		5	5	5	5	5	5	120

* Special Syllabus connected to the Master thesis (5, 10 or 15 study points)

** Taught odd years only

Mandatory for all MSc students in Microbiology
Mandatory, Specialisation Mycology
Mandatory, Specialisation Environmental Microbiology
Mandatory, Specialisation Pathogenic Microorganisms
White fill = electable courses coordinated with mandatory courses

} Choose at least one

Recommended Electable Courses:

SEMESTER:	STUDY POINTS (ECTS):	CODE:	COURSE NAME:
August, 1. year	5	MVI321	Fermentation Microbiology
August, 1. year	5	MVI390	Immunology, Food Allergy og Intolerance
Autumn 1st year	5	BIN350	Genome Analysis, Methodology
Autumn 1st year	10	BIO322	Molecular Genome Analysis
Autumn 1st year	10	BIO333	Mycology (odd years only)
Autumn 1st year	10	KJB310	Protein Chemistry
Autumn 1st year	10	KJM310	Chromatography
Autumn 1st year	10	KJM313	Mass Spectrometry
Autumn, 1st year	10	LNG240	Academic Writing
Autumn 1st year	10	MVI310	Proteins, Polysaccharides and Fat / Oil
Autumn 1st year	10	MVI322	Pathogenic Microorganisms
Autumn 1st year	10	MVI330	Experimental Design and Data Analyses
Autumn 1st year	5	MVI390B	Immunological Techniques (Two weeks Intensively)
Autumn 1st year	5	MVI392	Gastrointestinal Anatomy and Physiology
Autumn 1st year	10	STAT310	Design of Experiments and Analysis of Variance II
Spring 1st year	10	BIO301	Advanced Cell Biology
Spring 1st year	10	KJM311	Organic Spectroscopy
Spring 1st year	10	KJM312	Natural Product Chemistry
Spring 1st year	10	LNG240	Academic writing
Spring 1st year	10	STAT300	Statistical Data Analysis
July 1 st year	5	HFE309	Quant. Nutrition to Prevent Nutrition-related Diseases
July/August (even years only)	10	AB-327	Arctic Microbiology (UNIS, Spitsbergen)
Autumn 2nd year	5	MVI390B	Immunological Techniques (Two weeks Intensively)
January + spring 2nd year	10	BIO300	Microscopy Techniques
January 2nd year	5	BIO340	Bioethics
January 2nd year	5	KJB320	Proteomics
January 2nd year	5	BIO350	In situ RNA Hybridisation Techniques

NB! Admission to this his MSc program provides a *Bachelor's Degree in Biotechnology, Bioinformatics specialisation* (or equivalent). Details in page 3.
 A Bachelor's Degree with Specialisation in Statistics and Mathematics **does not** qualify for this MSc Program.

Master of Science in Bioinformatics and Applied Statistics, <i>bioinformatics specialisation</i>							
2	June	SPESI*					
	Spring	MSc thesis **					30
	January	STIN300					
	Autumn						
	August						
1	June						
	Spring	STAT300†	BIN300			10	
	January	STIN300					
	Autumn	BIN350	BIO322	BIN310***		20	
	August					5	
Credits		5	5	5	5	5	120

* Special Syllabus connected to the Master thesis (5, 10 or 15 study points)

** A 60 credits MSc thesis is highly recommended

*** BIN310 is taught odd years only

† STAT300 is 10 credits, taught January + spring

Mandatory, bioinformatics specialisation

White fill = electable courses coordinated with mandatory courses

In addition, students choose **at least two** courses from this list:

SEMESTER:	STUDY POINTS (ECTS):	CODE:	COURSE NAME:
Autumn 1st year	10	BIO321	Population Genetics and Molecular Evolution
Autumn 1st year	10	KJB310	Protein Chemistry
Autumn 1st year	10	STAT310	Design of Experiments and Analysis of Variance II
January + Spring 1st year	10	STAT300	Statistical Data Analysis
Spring 1st year	10	BIN300	Statistical Genomics

Recommended Electable Courses:

SEMESTER:	STUDY POINTS (ECTS):	CODE:	COURSE NAME:
Autumn + January, 1st year	10	INF200	Advanced Programming
Autumn, 1st year	10	LNG240	Academic Writing
Autumn, 1st year	10	MVI330	Experimental Design and Data Analyses
Autumn, 1st year	10	STAT360	Theoretical Statistics (even years)
Januar, 1. studieår	5	BIO340	Bioethics
Spring, 1st year	10	LNG240	Academic Writing
Spring, 1st year	10	STAT330	Analysis of Categorical Data (infrequent)

NB! Admission to this MSc program provides a *Bachelor of Science degree, with Specialisation in Statistics and Mathematics* (or equivalent).

A Bachelor's Degree in Biotechnology, with Bioinformatics specialisation **does not** qualify for this MSc Program.

Year/sem.		Master of Science in Bioinformatics and Applied Statistics, applied statistics specialisation						
2	June	SPESI*						
	Spring	MSc thesis						30
	January	STIN300						
	Autumn	MSc thesis						30
	August							
1	June							
	Spring	STAT300**	STAT360 [†]		STAT330**		30	
	January	STAT300**						
	Autumn	STAT310		BIN310***			10	
	August							
Credits		5	5	5	5	5	5	120

Mandatory, applied statistics

White fill = electable courses coordinated with mandatory courses

* Special Syllabus connected to the Master thesis (5, 10 or 15 study points)

** STAT330 is taught if resources

*** BIN310 is taught odd years only

[†] Taught even years only, and requires a minimum of five students

^{††} STAT300 is 10 credits, taught January + spring

**The Department of Chemistry, Biotechnology and Food Sciences
has the right to change this study plan.**