

Master's Degree Programme in Bioinformatics (MBI)

Example course schedules

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Courses in computer science, mathematics, statistics, biology and medicine accompanying bioinformatics courses will be chosen individually according to the academic background of the student.

Entries in italics, such as *Biology courses (4 cr)*, denote courses in the given subject to be taken according to the personal study plan.

Few differing recommendations/requirements between HY and TKK are categorized under respective titles. Students must choose the optional courses in such a way that TKK module requirements become fulfilled.

Schedule 1

Study time: 2 years, 2007-2009

Student with the background in computer science, mathematics or statistics (Bachelor's degree), no studies in biology or medicine.

Autumn 2007 (29-32 cr)

1. period (15 cr)

Introduction to bioinformatics (4 cr)

Biology for methodological scientists, module I (2 cr)

Practical bioinformatics, module I (2 cr)

Biology courses (3 cr)

Computer science, mathematics and statistics courses (4 cr)

2. period (15 cr)

Practical course on biodatabases (4 cr)

Biology for methodological scientists, module II (2 cr)

Practical bioinformatics, module II (2 cr)

Computer science, mathematics and statistics courses (7 cr)

TKK:

IT services at TKK (2 cr)

English placement test (3cr)

Spring 2008 (28-32 cr)

3. period (14.5 cr)

Biological sequence analysis (6 cr)

High-throughput bioinformatics, begins (3.5/7 cr)

Biology for methodological scientists, module III (2 cr)

Measurement techniques for bioinformatics, begins (3/6 cr)

Academic writing for students in English-medium Master's degree programmes

1, begins

4. period (13.5 cr)

Practical course on phylogenetic analysis (5 cr)

High-throughput bioinformatics, ends (3.5/7 cr)

Biology for methodological scientists, module IV (2 cr)

Measurement techniques for bioinformatics, ends (3/6 cr)

Academic writing for students in English-medium Master's degree programmes
1, ends

TKK:

Finnish 1A (2 cr)

Finnish 1B (2 cr)

Summer 2008 (3 cr)

Advanced internship (3 cr)

Autumn 2008 (27 cr)

1. period (11.5 cr)

Bioinformatics courses (2 cr)

Biology courses (4 cr)

Computer science, mathematics and statistics courses (4 cr)

2. period (15.5 cr)

Bioinformatics courses (2 cr)

Master's thesis, begins (12/40 cr)

Master's thesis seminar, begins

Academic writing for students in English-medium Master's degree programmes
2, begins

HY:

Seminar 1 (3 cr)

Spring 2009 (29-32 cr)

3. period (15 cr)

Master's thesis, continues (13.5/40 cr)

Master's thesis seminar, continues

Academic writing for students in English-medium Master's degree programmes
2, continues

4. period (17 cr)

Master's thesis, ends (14.5/40 cr)

Master's thesis seminar, ends

Academic writing for students in English-medium Master's degree programmes
2, ends

Maturity test

Personal study plan (1 cr)

HY:

Seminar 2 (3 cr)

Schedule 2

Study time: 2 years, 2007-2009

Student with background in biology and medicine (Bachelor's degree), basic studies in computer science and mathematics (at least 60 cr)

Autumn 2007 (30 cr)

1. period (14 cr)

Introduction to bioinformatics (4 cr)

Biology for methodological scientists, module I (2 cr)

Computer science, mathematics and statistics courses (8 cr)

2. period (16 cr)

Practical course on biodatabases (4 cr)

Practical bioinformatics, module II (2 cr)

Computer science, mathematics and statistics courses (10 cr)

TKK:

IT services at TKK (2 cr)

English placement test (3cr)

Spring 2008 (30 cr)

3. period (15 cr)

Biological sequence analysis (6 cr)

Measurement techniques for bioinformatics, begins (3/6 cr)

Practical bioinformatics, module III (2 cr)

Computer science, mathematics and statistics courses (4 cr)

Academic writing for students in English-medium Master's degree programmes 1, begins

4. period (15 cr)

Practical course on phylogenetic analysis (5 cr)

Measurement techniques for bioinformatics, ends (3/6 cr)

Practical bioinformatics, module IV (2 cr)

Computer science, mathematics and statistics courses (5 cr)

Academic writing for students in English-medium Master's degree programmes 1, ends

TKK:

Finnish 1A (2 cr)

Finnish 1B (2 cr)

Summer 2008 (3 cr)

Advanced internship (3 cr)

Autumn 2008 (29 cr)

1. period (13,5 cr)

Bioinformatics courses (7 cr)

Computer science, mathematics and statistics courses (5 cr)

2. period (15.5 cr)

Bioinformatics courses (4 cr)

Master's thesis, begins (10/40 cr)

Master's thesis seminar, begins

Academic writing for students in English-medium Master's degree programmes 2, begins

HY:

Seminar 1 (3 cr)

Spring 2009 (34 cr)

3. period (16.5 cr)

Master's thesis, continues (15/40 cr)

Master's thesis seminar, continues

Academic writing for students in English-medium Master's degree programmes 2, continues

4. period (17.5 cr)

Master's thesis, ends (15/40 cr)

Master's thesis seminar, ends

Academic writing for students in English-medium Master's degree programmes 2, ends

Maturity test

Personal study plan (1 cr)

HY:

Seminar 2 (3 cr)