

# Functional Genetics and Bioinformatics

Recommended courses for students enrolled in summer semester

## Bioinformatics

1<sup>st</sup> Summer Semester

Master thesis, Practical part  
(KMB/881)  
Genetics – Colloquia  
(KMB/180)  
Cell Structure and Function (5 ECTS)  
(KMB/914)  
Essays in Omics & Biotechnology  
(2 ECTS)  
(KMB/918)  
Practical Computing for Biologists II  
(3 ECTS)  
(KMB/939)

BASH Programming (4 ECTS)  
(KMB/934)  
Introduction to R (4 ECTS)  
(KMB/922)  
Genomics (6 ECTS)  
(KMB/919)

## Human Molecular Genetics

1<sup>st</sup> Summer Semester

Master thesis, Practical part  
(KMB/881)  
Genetics – Colloquia  
(KMB/180)  
Cell Structure and Function (5 ECTS)  
(KMB/914)  
Essays in Omics & Biotechnology  
(2 ECTS)  
(KMB/918)  
Practical Computing for Biologists II  
(3 ECTS)  
(KMB/939)

Fundamental Human Genetics (5 ECTS)  
(KMB/932)  
Molecular Mechanisms of Disease  
(6 ECTS)  
(KMB/923)

a) Epigenetics & Regulation of Gene  
Expr. (5 ECTS)  
(KMB/618)  
OR  
b) Molecular Physiology and  
Metabolism (3 ECTS) (KMB/924) and  
Advanced Methods of Mol. Biology 2  
(2 ECTS) (KMB/602E)

## Molecular Cell Biology and Genetics

1<sup>st</sup> Summer Semester

Master thesis, Practical part  
(KMB/881)  
Genetics – Colloquia  
(KMB/180)  
Cell Structure and Function (5 ECTS)  
(KMB/914)  
Essays in Omics & Biotechnology  
(2 ECTS)  
(KMB/918)  
Practical Computing for Biologists II  
(3 ECTS)  
(KMB/939)

Molecular Mechanisms of Disease (6  
ECTS)  
(KMB/923)  
Epigenetics & Regulation of Gene Expr.  
(5 ECTS)  
(KMB/618)  
Advanced Methods of Mol. Biology 2  
(2 ECTS) (KMB/602E)  
Molecular Physiology and Metabolism  
(3 ECTS) (KMB/924)

## Biotechnology

1<sup>st</sup> Summer Semester

Master thesis, Practical part  
(KMB/881)  
Genetics – Colloquia  
(KMB/180)  
Cell Structure and Function (5 ECTS)  
(KMB/914)  
Essays in Omics & Biotechnology  
(2 ECTS)  
(KMB/918)  
Practical Computing for Biologists II  
(3 ECTS)  
(KMB/939)

Gene & Protein Engineering (4 ECTS)  
(UCH/020)  
Plant Biotechnology (3 ECTS)  
(KMB/937)  
Animal Biotechnology (5 ECTS)  
(VURH/ANBIF)

a) Molecular Physiology and  
Metabolism (3 ECTS)  
(KMB/924)  
OR  
b) Algal Biotechnology (4 ECTS)  
(KMB/912)

For an overall overview of the programme [click here](#)

Core courses (common to all)

Obligatory courses

Obligatory elective courses