

BIOINFORMATICS: ANIMAL SCIENCES, MS

for the Master of Science in Bioinformatics, Animal Sciences Concentration

For additional details and requirements refer to the department's Graduate Handbook (<http://ansci.illinois.edu/grads/degree-requirements/>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook/>).

Thesis Option

Code	Title	Hours
Biology (choose one)		4
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 446	Population Genetics	
BIOP 401	Introduction to Biophysics	
BIOP 550	Biomolecular Physics	
CPSC 452	Advanced Plant Genetics	
CPSC 466	Genomics for Plant Improvement	
CPSC 563	Chromosomes	
CPSC 566	Plant Gene Regulation	
MCB 400	Cancer Cell Biology	
MCB 450	Introductory Biochemistry	
MCB 501	Advanced Biochemistry	
MCB 502	Advanced Molecular and Cell Biology	
Fundamental Bioinformatics (choose one)		4
ANSC 542	Applied Bioinformatics	
ANSC 545	Statistical Genomics	
CHBE 571	Bioinformatics	
CPSC 567	Bioinformatics & Systems Biol	
CS 466	Introduction to Bioinformatics	
IB 467	Principles of Systematics	
MCB 432	Computing in Molecular Biology	
Computer Science and Informatics (choose one)		4
CS 411	Database Systems	
CS 466	Introduction to Bioinformatics	
CS 473	Algorithms	
CPSC 565	Perl & UNIX for Bioinformatics	
IS 455	Database Design and Prototyping	
IS 507	Data, Statistical Models and Information	
STAT 428	Statistical Computing	
STAT 440	Statistical Data Management	
STAT 448	Advanced Data Analysis	
STAT 480	Big Data Analytics	
STAT 525	Computational Statistics	
Graduate seminar (ANSC 590) enrollment is required every semester (max 2 hours can be applied to the degree)		2
ANSC 599	Thesis Research (min/max applied toward degree)	8
Electives		14
Total Hours		36

Other Requirements

Requirement

Other Requirements and conditions may overlap

A concentration is required.

Minimum Hours Overall Required Within the Unit: 8

Minimum 500-level Hours Required Overall: 12

A comprehensive oral examination concerning the thesis and other areas of Bioinformatics and Animal Sciences is required.

Thesis Deposit Required: Yes

Minimum GPA: 3.0