Microbiology Departmental Course Requirements

For Course Descriptions and Timetable Information, please visit: https://courses.illinois.edu/

MCB Graduate Required Courses: 18cr. total
Core: Fall first year
MCB 501 Advanced Biochemistry, 4cr.
MCB 502 Advanced Molecular Genetics, 4cr.

Rotations: Fall first year
MCB 581 Laboratory Rotation 1, 3cr.
MCB 582 Laboratory Rotation 2, 3cr.
MCB 583 Laboratory Rotation 3, 3cr.

Ethics: Fall second year
MCB 580 Research Ethics and Responsibilities, 1cr.

Microbiology Graduate Required Courses: at least 15cr. total

Microbiology Graduate Seminar (4 cr. total count): Required every semester
MICR 595 Microbiology Graduate Seminar 1cr., T/Th Micro seminars

Advanced Discussion Courses (2 cr. total)
MCB 585 Current Topics in Microbiology 1cr., Spring first year
MCB 5XX Advanced Discussion various topics 1cr., options Fall and Spring any year

Scientific Writing Course (3 cr. total)
MCB 540 Scientific Writing 3cr., Fall second year

Microbiology Research Credits Taken Every Semester as Noted
MICR 590. Individual Topics (prior to passing prelim. exam)
MICR 599. Thesis Research (post-prelim. exam)

Advanced Elective Courses (at least 6 cr. total)
Take at least two of the following options:
BIOC 440b. Physical Chemistry Principles
MCB 408 Immunology, 3cr.
MCB 421 Microbial Genetics, 3cr.
MCB 424 Microbial Biochemistry, 3cr.
MCB 426 Bacterial Pathogenesis, 3cr.
MCB 431 Microbial Physiology, 3cr.
MCB 432 Computing in Molecular Biology, 3cr.
MCB 435 Evolution of Infectious Disease, 3cr.
MCB 493 VIR Virology, 3cr.
MCB 571 Bioinformatics, 4cr.
IB 501 Programming for Genomics, 4cr.
IB 496 Special Courses: Analysis of Biological Data in R, 4cr.
PATH 517 Principle/Method in Epidemiology, 4cr.
CS 466: Introduction to Bioinformatics (discuss prereq. with instructor), 3 or 4cr.

CS 581 Algorithmic Genomic Biology (discuss prereq. with instructor), 4cr.

Here is the link for MCB-based courses: mcb.illinois.edu/courses/graduate. Other MCB 400- or 500-level courses, as well as ones that may not be MCB 400- or 500-level courses, may be beneficial for your research. As with any course, discuss its merits with your advisor before registering.

Typical Course Progression for a Microbiology Graduate Student*

*Note, courses and coursework load should always be selected with advice from research mentor and committee. This timeline is only an example.

Fall first year
MCB 501 Advanced Biochemistry, 4cr.
MCB 502 Advanced Molecular Genetics, 4cr.
MCB 581 Laboratory Rotation 1, 3cr.
MCB 582 Laboratory Rotation 2, 3cr.
MCB 583 Laboratory Rotation 3, 3cr.

Spring first year
MICR 595 Microbiology Graduate Seminar, 1cr.
MCB 585 Current Topics in Microbiology, 1cr.
MCB 4XX Advanced Elective, 3 or 4cr.
MICR 590 Individual Topics, Register for remaining credits needed to total 14 (if holding TA) or 16 (if holding RA)

Fall second year
MICR 595 Microbiology Graduate Seminar, 1cr.
MCB 580 Research Ethics and Responsibilities, 1cr.
MCB 540 Scientific Writing, 3cr.
MICR 590 Individual Topics, Register for remaining credits needed to total 14 (if holding TA) or 16 (if holding RA)

Spring second year
MICR 595 Microbiology Graduate Seminar, 1cr.
MCB 4XX Advanced Elective, 3 or 4cr.
MCB 5XX Advanced Discussion, 1cr.
MICR 590 Individual Topics, Register for remaining credits needed to total 14 (if holding TA) or 16 (if holding RA)

Third year and beyond
MICR 595 Microbiology Graduate Seminar, 1cr.
MICR 599 Thesis Research (post-prelim. exam), Register for remaining credits needed to total 14 (if holding TA) or 16 (if holding RA)
Additional advanced electives or discussions (if needed based on advice of committee)

02/10/2021