Plan of Study for Microbiology and Cell Science PhD Students

Students should communicate with their major professor to determine course expectations each semester. A student's major professor/committee may waive and/or add course requirements. There is flexibility with the number of credits a student registers for each semester, depending on the time they have available to devote to their studies. We recommend that students have at least 20 hours per week to spend on coursework and research.

Once the student and major professor have agreed on a course schedule, the student should communicate with the graduate program advisor to ensure registration is completed.

In the student's first semester, they should contact the graduate program advisor to initiate the Master's Degree Acknowledgement (MDA) process. The MDA is a petition to use 30 credits from an earned master's degree toward the 90 credit PhD program.

Course Requirements

BSC6459 Fundamentals in Bioinformatics (offered each fall semester) – 3 credits
MCB6796 Microbiological Data Analysis (offered each fall semester) – 3 credits
MCB6318 Comparative Microbial Genomics (offered each spring semester) – 2 credits
MCB6937 Python Programming (offered each spring semester) – 3 credits
Electives (4 credits) – choose from the options below
- **MCB6670C** The Microbiome ((offered each spring semester) – 3 credits
- **BSC6895C** AI in Agriculture and Life Sciences (offered each fall semester) – 3 credits
- **MCB6095** Careers for Impact in Microbiology and Cell Science (offered fall, spring, and summer) – 1 credit
- **MCB6096** Innovation Project Management for Life Sciences (offered fall, spring, and summer) – 1 credit

***MCB6930** Seminar
***MCB7922** Journal Colloquy
****MCB7979** Advanced Research
****MCB7980** Doctoral Research

*Seminar and Journal Colloquy with the student's major professor are required every fall and spring semester.
**MCB7979 must be taken each semester prior to the qualifying exam. Once the qualifying exam is complete, MCB7980 will be taken each semester until graduation.

Plan of Study for Microbiology and Cell Science PhD Students

Example Schedule:

Fall, 1st Semester: 6 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy (1 credit)
BSC6459 Fundamentals in Bioinformatics (3 credits)
MCB7979 Advanced Research (1 credit)
Initiate MDA process

Spring, 2nd Semester: 5 credits
MCB7922 Journal Colloquy (1 credit)
MCB6318 Comparative Microbial Genomics (2 credits)
MCB6930 Seminar (1 credit)
MCB7979 Advanced Research (1 credit)

Summer, 3rd Semester: 2 credits
MCB7979 Advanced Research (2 credits)

Fall, 4th Semester: 6 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy (1 credit)
MCB7979 Advanced Research (1 credit)
MCB6796 Microbiological Data Analysis (3 credits)

Spring, 5th Semester: 6 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy (1 credit)
MCB7979 Advanced Research (1 credit)
MCB6937 Python Programming (3 credits)

Summer, 6th Semester: 2 credits
MCB7979 Advanced Research (2 credits)

Fall, 7th Semester: 6 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy (1 credit)
MCB7979 Advanced Research (1 credit)
BSC6895C AI in Agriculture and Life Sciences (3 credits)

Spring, 8th Semester: 5 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy (1 credit)
MCB7979 Advanced Research (2 credits)
MCB6096 Innovation Project Management (1 credit)

Summer, 9th Semester: 3 credits
MCB7979 Advanced Research (3 credits)
Complete Qualifying Exam

Fall, 10th Semester: 4 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy 1 credit)
MCB7980 Doctoral Research (2 credits)

Spring, 11th Semester: 4 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy 1 credit)
MCB7980 Doctoral Research (2 credits)

Summer, 12th Semester: 3 credits
MCB7980 Doctoral Research (3 credits)

Fall, 13th Semester: 4 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy 1 credit)
MCB7980 Doctoral Research (2 credits)

Spring, 14th Semester: 4 credits
MCB6930 Seminar (1 credit)
MCB7922 Journal Colloquy 1 credit)
MCB7980 Doctoral Research (2 credits)

Student has now earned 90 credits and is eligible to graduate once they are prepared to present their dissertation.