SUMMARY OF REQUIREMENTS FOR MASTERS’ PROGRAM:
All MCB Master’s students must complete and pass six graduate level life science courses with a grade of B- or better, including one laboratory- or research-based course. In addition to these six courses, students must register for and attend the following required courses/seminars: one semester of Responsible Conduct of Science, two semesters of Journal Clubs, and two semesters of Graduate Student Research Seminar. The minimum residence requirement is one year.

LIFE SCIENCES GRADUATE LEVEL COURSES:
When the degree is to be completed in one year, this will be done at a rate of three courses per semester for two semesters. However, some students may instead elect to finish the degree in one and a half or two years (e.g. when they introduce a heavy research component into the program or write an optional thesis). Students must pass each of the six courses with a grade of B- or better. Courses outside of the life sciences will be considered on a case-by-case basis by the program Chair. In general, transfer credit is not accepted for the Master’s Program.

A minimum of six graduate-level life sciences courses (passed with a grade of B- or better), one semester of Responsible Conduct of Science (CONT300), and two semesters of appropriate Journal Clubs and Graduate Student Research Seminar, are all required for the degree.

Courses: The six required courses must include:
- BIOL101a (Molecular Biotechnology)*
- BIOL100b (Advanced Cell Biology)*
- One laboratory or research based course (see Research Requirement below)
- Three life sciences electives agreed upon by the Chair of the MS program.

* With permission of the Chair, BIOL105b (Molecular Biology) may be taken in lieu of BIOL101a, and BIOL103b (Mechanisms of Cell Functions) may be taken in lieu of BIOL100b (NOTE: BIOL103b will not be offered for the 2015/2016 academic year). If a required course (BIOL101a or BIOL100b) is “closed” for registration, please email the course instructor indicating that you are a MCB MS student; the instructor will usually email you a consent code so that you can still register online.

Journal Clubs: Students should register and attend two semesters of an appropriate Journal Club as listed below. Master’s students are not required to present an article in the Journal Club.
- Molecular Genetics BIOL305a/b
- Neurobiology NBIOS06a/b
- Computational Neuroscience NBIOS40a/b

Graduate Student Research Seminar (BIOL350a/b, “Pizza Talks”): All students are required to register for and attend two semesters of the Graduate Student Research Seminar Pizza Talks, held on Fridays at 12:30 pm. Master’s students are not required to present at the seminar.
**Responsible Conduct of Science:** Students must register for and attend Responsible Conduct of Science (CONT300B), usually offered in the Spring semester.

**Tuesday Colloquia Series:** All students should attend the regular Joint Biology/Neuroscience Colloquia on Tuesdays at 12:30pm.

**RESEARCH REQUIREMENT:**

There are four options for completion of the research requirement:

1. **BIOL296a/b** (one semester Master’s Research Lab, see below for more information)
2. A Project Laboratory. A project laboratory provides a semi-independent, guided research project experience. Options include BIOL155a: Genetics and Genomics, BIOL156a: Biotechnology, BIOL158b: Cell Biology, BCHM155b: Biochemistry Laboratory, NBIO157a: Neurobiology and Behavior.
3. **BIOL299a/b** (Master’s Thesis, see below for more information), Master’s Research Laboratory or BIOL296a/b is usually taken before BIOL299a/b, but in the event that both are taken, BIOL296a/b may be used as elective course).
4. **BIOL298a** (Readings in Molecular and Cell Biology) if given permission by the Chair in advance

**Master’s Research Lab (BIOL296a/b):** As one option to fulfill the research requirement of the Master’s degree, this offers students an opportunity to engage in biological research by working in the laboratory of a faculty member for at least 15 hours/week for one semester. Program Chair approval is required. Students who choose to do a Master’s Research Lab should register for BIOL296a/b with the respective faculty. The choice of laboratory is made jointly by the student and the faculty member in whose lab the research is to take place. Students may choose from faculty in the Departments of Biology, Biochemistry, Chemistry and Physics. To find a research advisor, define a list of potential advisors using the graduate bulletin and faculty listing as a starting point, and then email and speak with the professors you are most interested in. The graduate bulletin is available online at our registrar’s website (http://www.brandeis.edu/registrar/bulletin/; the section labeled “Provisional Bulletin 2015-2016” contains information for the upcoming year) and the online faculty listing is on the program website (http://www.bio.brandeis.edu/faculty/list_lastname.php). The program Chair is also available to give advice on research advisors. Students who enter in the fall semester and wish to work in a laboratory are encouraged to wait to contact faculty regarding potential lab work until they arrive on campus for orientation. They should attend the “faculty bazaar” held during orientation week to aid in lab selection for graduate students. It is the responsibility of the student to find a lab for their Master’s Research Lab and Master’s students are not guaranteed a spot in a lab. We recommend that you arrange BIOL296a/b a few weeks before the start date to ensure that you secure a spot. If requested by the research advisor, the student will submit a written research lab report or deliver a research seminar at the end of the semester.

**Master’s Thesis (BIOL299a/b; optional):** The student carries out a research project (lasting a minimum of one semester, but usually the entire year) in a single lab and submits a thesis. Students who register for a Master’s thesis (BIOL299a/b) have typically worked in the same lab for previous semester and have made substantial research progress. It is the responsibility of the students to find a research advisor for the thesis work. Submission of a Master’s thesis requires mutual agreement between the student, advisor, and program Chair. Students that wish to complete a Master’s thesis should indicate their interest to their research advisor at the beginning of their Master’s research lab work. The mutual agreement that a Thesis will be written is typically reached at the middle or end of the previous BIOL296a/b research semester.
Note that students who complete a Master’s thesis generally extend their total time in the program to 1.5 or 2 years, after first completing one or two semesters of laboratory research (BIOL296a/b). A student who plans to register for Biol299 in the Fall semester of the second year must notify the program Chair and the biology office of their intention no later than March 1st (same deadlines as application for graduation), so that the program may extend the student’s time in the program as necessary. A student who plans to register for BIOL299a/b in the Spring semester of the first year must notify the program Chair and the Graduate Affairs office of their intention no later than November 1st. Deadlines and guidelines for submission and acceptance of the Master’s thesis are set by the graduate school and the registrar.

TIMELINE:

First Year
Students in their first semester (Fall 2015) will register for a Journal Club, the Graduate Student Research Seminar (BIOL350a), and three lecture courses: BIOL101a (Molecular Biotechnology) and two courses to be agreed upon by the program Chair.

Students in their second semester (Spring 2016) will register for a Journal Club, the Graduate Student Research Seminar (BIOL350b), Responsible Conduct of Science (CONT300b, a not-for-credit course), BIOL100b (Advanced Cell Biology), an elective course, and a research-based course (if not taken in Fall 2015 and as described above). If the student is prepared to write a thesis and defend in the Spring, they will register for Master’s Thesis (BIOL299b) instead of the research-based course.

Second Year
Students who have chosen to write a Master’s Thesis will typically register for the Master’s Thesis (BIOL299a) course in the Fall semester of the following year. Students who only register for BIOL299a may be eligible for a partial-tuition credit. For information about how to apply for this credit, please contact GSAS’ Financial Aid coordinator.

PROGRESS:
Students’ progress will be reviewed by the graduate committee and the Chair of the program at the end of each semester. Students must complete all courses with a grade of B- or better and may be terminated at the end of a semester if the student’s record is unsatisfactory. Students wishing to be admitted to a second year of study must demonstrate adequate progress.

RESIDENCY:
The minimum residence requirement is one year. Students may take additional an one or two semesters to complete the MS degree as an Extended Master's student with approval of the Chair of the program. International students may extend their time one semester if they are still completing required coursework. International students who have completed all required coursework and wish to complete the optional Master’s Thesis may stay an extra semester with advanced approval from the advising faculty, the program Chair, and ISSO (by November 1st if completing the thesis in the spring semester and by March 1st if completing the thesis in the fall semester).