All graduate students in biology must meet the following requirements:

### Biology: Cellular and Molecular Biology Concentration - Master of Science

**Program requirements**

This concentration requires:

1. Completion of a research thesis in an area of cellular or molecular biology.
2. Passing an oral comprehensive exam, and
3. Completion of 30 credits with at least 15 credits from the following list; remaining credits are to be selected by the student and the advisory committee.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIC 516</td>
<td>Prokaryotic Molecular Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIO 532</td>
<td>Biology of Cancer</td>
<td>2</td>
</tr>
<tr>
<td>BIO 535</td>
<td>Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 536</td>
<td>Molecular Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO 537</td>
<td>Plant Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>BIO 543</td>
<td>Molecular Mechanism of Disease and Drug Action</td>
<td>3</td>
</tr>
<tr>
<td>BIO 558</td>
<td>Comparative Animal Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 563</td>
<td>Aquatic Animal Health</td>
<td>3</td>
</tr>
<tr>
<td>BIO 714</td>
<td>Advanced Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIO 799</td>
<td>Research: Master’s Thesis</td>
<td>1-6</td>
</tr>
</tbody>
</table>

Total credits: 30

With the approval of the student’s advisory committee, other courses may be substituted for those listed.

**Degree requirements**

### Biology graduate student requirements

All graduate students in biology must meet the following requirements:

1. Prior to registration each semester, the student must consult with the major advisor.
2. Submit a written thesis or seminar paper proposal to the advisory committee prior to the mid-term of the second semester of residence. CRNA students are exempt from this requirement and are not required to complete a thesis or seminar paper as part of the degree program.
3. Enroll in BIO 751 Graduate Seminar (1 cr.) or MIC 751 Graduate Seminar (1 cr.), Graduate Seminar, during the first four semesters of residence. Two of the semesters must be taken for one credit each; the other two semesters will be taken on an audit (no credit) basis. CRNA students are exempt from this requirement.
4. Students who are on campus, utilizing university staff and/or facilities must enroll for a minimum of two credit hours per term, including fall or spring semester and summer sessions.
5. Students are encouraged to complete an appropriate graduate course (numbers 500 and above) from outside the departments of biology and microbiology. Upon approval of a student’s advisory committee, a student may be permitted to take a maximum of 10 graduate credits in other departments.
6. Pass a preliminary oral examination covering the student’s area of specialty and advanced course work.
7. Complete at least 15 credits of 700-level course work.
8. Consult this catalog and the department’s graduate student guidelines for additional policies pertaining to graduate students in a biology program.

### Graduate degree requirements

After being admitted to the program of one’s choice, candidates for a graduate degree must:

1. Complete any preliminary course work and deficiencies.
2. Complete all courses and other program requirements, including residence requirements prescribed for the degree desired in the respective school or college within a seven-year period from the date of initial enrollment.
3. Earn a minimum of 30 credits for a master’s degree; 54 credits for a doctorate or post-master’s degree. Earn at least one-half of the minimum number of credits required in the program in graduate-only level courses (700, 800, 900, and non-slash 600 level courses).
4. Earn a cumulative grade point average of at least 3.00.
5. Satisfy dissertation, thesis, seminar paper, terminal/graduate projects and internships, or comprehensive examination, where applicable. A dissertation or thesis approved by the committee must be submitted to the Director of Graduate Studies for approval at least two weeks before commencement. Ordinarily, a seminar paper or project report does not have to be approved by the Director of Graduate Studies. However, if the seminar paper or project report is to be archived in Murphy Library, the student must follow the same rules as they apply to the dissertation/thesis requiring approval from the Director of Graduate Studies. For further research/dissertation/thesis guidelines (https://www.uwlax.edu/graduate-studies), see the Office of Graduate Studies.
6. File a completed “Intent to Graduate” form online via the WINGS Student Center immediately following registration for the final semester or summer term in residence. December graduates and winter intersession should file by May 1. May and summer graduates should file by December 1.
7. Pay the graduation fee and remove all other indebtedness to the university. Payment of graduation fees does not imply readiness for graduation and does not take the place of applying for graduation.
8. Complete all requirements within 30 days after the official ending date of a term in order for a degree to be awarded for that term. (See #5 above for separate deadline for written capstone experience.)