BIOLOGY AND SECONDARY EDUCATION (BS/MED)

Become a high school biology teacher. In this five-year, dual-degree program, students earn a bachelor’s degree in Biology and a master’s degree in Secondary Education, preparing them to teach grades 9-12. Through this program, students qualify for an Illinois Professional Educator License (PEL) in Secondary Education (grades 9-12) and fulfill the requirements for the Illinois English as Second Language (ESL) endorsement. Additional endorsements can be added to teach science in Middles Grades (grades 5-8), as well as additional science disciplines.

In Illinois there is a critical need for secondary science teachers. Numerous job opportunities are available for students interested in becoming secondary science teachers.

- Earn both degrees together in less time and at a lower cost than it would take if pursued separately.
- Gain broad perspective through a multidisciplinary curriculum.
- Get real-world classroom experience in diverse settings through Loyola partnerships with schools and communities.
- Gain extensive experiences engaging with diverse populations, including students with special needs and those labeled as English language learners (ELL)

Curriculum

Students are enrolled in the College of Arts and Sciences (https://catalog.luc.edu/undergraduate/arts-sciences/biology/biology-bs/) for the first four years, working to complete the requirements for a bachelor of science degree in biology (https://catalog.luc.edu/undergraduate/arts-sciences/biology/biology-bs/). Students may begin the required sequence of classes for the MEd in Secondary Education starting in their junior or senior year. The remainder of required education courses, including student teaching, are completed in the fifth year.

The M.Ed. Sequence of classes is 37 credit hours and includes the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLSC 401</td>
<td>Language, Learning &amp; Development Theories in Practice</td>
<td>2</td>
</tr>
<tr>
<td>TLSC 403</td>
<td>Teaching for Social Justice and Equity</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 404</td>
<td>Constructive Learning Environments for Diverse Students</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 406</td>
<td>Educational Policy for Diverse Students</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 407</td>
<td>Individualized Assessment and Instruction for Diverse Students</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 443</td>
<td>Adolescent Literacy Instruction</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 455</td>
<td>Secondary Content Methods: Curriculum, Instruction and Assessment in Secondary Content Areas</td>
<td>6</td>
</tr>
<tr>
<td>TLSC 460</td>
<td>Developing Rigorous and Relevant Instruction and Assessment</td>
<td>2</td>
</tr>
<tr>
<td>TLSC 461</td>
<td>Designing and Implementing Rigorous and Relevant Instruction</td>
<td>3</td>
</tr>
<tr>
<td>TLSC 470A</td>
<td>Student Teaching for Change</td>
<td>1-6</td>
</tr>
</tbody>
</table>

Students work under the guidance of the School of Education Senior Academic Advisor to outline a specific course of study to fulfill all requirements. The number and timing of the education courses taken in the fourth and fifth years can vary depending on each student’s particular needs. Summer courses may be needed between the fourth and fifth year depending on the number of courses taken during years three and four, and depending on whether additional teaching endorsements are sought.

Program Overview

<table>
<thead>
<tr>
<th>Years 1-2</th>
<th>Years 3-4</th>
<th>Year 5 Summer 1</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content B.A. / B.S. major requirements in CAS</td>
<td>Content B.A. / B.S. major requirements in CAS</td>
<td>M.Ed. coursework begins late May following graduation from bachelor's program</td>
<td>Education coursework</td>
<td>Student Teaching</td>
<td>Student Teaching ends in June</td>
</tr>
</tbody>
</table>

Contact Dr. Lara Smetana for School of Education advising.

Education coursework as schedule allows (Sequences 1-3) School visits 1 day per week + on-campus courses 3 late afternoons and evenings per week Part time student teaching starting in January, full time starting in March

Join a Science Education Professional Learning Community (PLC) in School of Education as schedule allows

Optional - complete coursework for endorsements (e.g. bilingual, other content areas)

Formally apply to MEd program between August and March of the year

Guidelines for Accelerated Bachelor’s/Master’s Programs

Terms

- Accelerated Bachelor’s/Master’s programs: In this type of program, students share limited credits between their undergraduate and graduate degrees to facilitate completion of both degrees.
- Shared credits: Graduate level credit hours taken during the undergraduate program and then applied towards graduate program requirements will be referred to as Shared credits.

Admission Requirements

Accelerated Bachelor’s/Master’s programs are designed to enhance opportunities for advanced training for Loyola’s undergraduates. Admission to these programs must be competitive and will depend upon a positive review of credentials by the program’s admissions committee. Accordingly, the admission requirements for these programs may be higher than those required if the master’s degree were pursued entirely after the receipt of a bachelor’s degree. That is, programs may choose to have more stringent admissions requirements in addition to those minimal requirements below.
Requirements:

- Declared appropriate undergraduate major,
- By the time students begin taking graduate courses as an undergraduate, the student has completed approximately 90 credit hours, or the credit hours required in a program that is accredited by a specialty organization,$^1$
- A minimum cumulative GPA for coursework at Loyola that is at or above the program-specific requirements, a minimum major GPA that is at or above the program-specific requirements, and/or appropriate designated coursework for evaluation of student readiness in their discipline.$^2$

Students not eligible for the Accelerated Bachelor's/Master's program (e.g., students who have not declared the appropriate undergraduate major) may apply to the master's program through the regular admissions process. Students enrolled in an Accelerated Bachelor's/Master's program who choose not to continue to the master's degree program upon completion of the bachelor's degree will face no consequences.$^3$

Ideally, a student will apply for admission (or confirm interest in proceeding towards the graduate degree in opt-out programs) as they approach 90 credit hours. Programs are encouraged to begin advising students early in their major so that they are aware of the program and, if interested, can complete their bachelor's degree requirements in a way that facilitates completion of the program. Once admitted as an undergraduate, Program Directors should ensure that students are enrolled using the plan code associated with the Accelerated Bachelor's/Master's program. Using the plan code associated with the Accelerated Bachelor's/Master's program will ensure that students may be easily identified as they move through the program. Students will not officially matriculate into the master's degree program and be labeled as a graduate student by the university, with accompanying changes to tuition and Financial Aid (see below), until the undergraduate degree has been awarded. Once admitted to the graduate program, students must meet the academic standing requirements of their graduate program as they complete the program curriculum.

$^1$ Programs that have specialized accreditation will adhere to the admissions criteria provided by, or approved by, their specialized accreditors.

$^2$ The program will identify appropriate indicators of student readiness for graduate coursework (e.g., high-level performance in 300 level courses). Recognizing differences between how majors are designed, we do not specify a blanket requirement.

$^3$ If students choose not to enroll in the Accelerated Bachelor's/Master's program, they still must complete all of the standard requirements associated with the undergraduate degree (e.g., a capstone).

**Curriculum**

**Level and progression of courses.** The Accelerated Bachelor's/Master's programs are designed to be competitive and attractive to our most capable students. Students admitted to Accelerated Bachelor's/Master's programs should be capable of meeting graduate level learning outcomes. Following guidance from the Higher Learning Commission, only courses taken at the 400 level or higher (including 300/400 level courses taken at the 400 level) will count toward the graduate program.$^{1,2}$

Up to 50% of the total graduate level credit hours, required in the graduate program, may come from 300/400 level courses where the student is enrolled in the 400 level of the course. Further, at least 50% of the credit hours for the graduate program must come from courses that are designed for and restricted to graduate students who have been admitted to a graduate program at Loyola (e.g., enrolled in plan code that indicates the Accelerated Bachelor's/Master's program, typically ending with the letter "D").$^3$

In general, graduate level coursework should not be taken prior to admission into the Accelerated Bachelor's/Master's program. Exceptions may be granted for professional programs where curriculum for the Accelerated Bachelor's/Master's program is designed to begin earlier. On the recommendation of the program's Graduate Director, students may take one of their graduate level courses before they are admitted to the Accelerated Bachelor's/Master's program if they have advanced abilities in their discipline and course offerings warrant such an exception.$^4$

Undergraduate degree requirements outside of the major are in no way impacted by admission to an Accelerated Bachelor's/Master's program.$^5$

**Shared credits.** Undergraduate courses (i.e., courses offered at the 300 level or below) cannot be counted as shared credits nor count towards the master's degree. Up to 50% of the total graduate level credit hours, required in the graduate program, may be counted in meeting both the undergraduate and graduate degree requirements. Of those shared credits, students in an Accelerated Bachelor's/Master's program should begin their graduate program with the standard introductory course(s) for the program whenever possible. So that students may progress through the Accelerated Bachelor's/Master's program in a timely manner, undergraduate programs are encouraged to design their curriculum such that a student can complete some required graduate credit hours while completing the undergraduate degree. For instance, some of the graduate curriculum should also satisfy electives for the undergraduate major.

The program's Graduate Director will designate credit hours to be shared through the advising form and master's degree conferral review process. Shared credit hours will not be marked on the undergraduate record as having a special status in the undergraduate program. They will be included in the student's undergraduate earned hours and GPA. Graduate credit hours taken during the undergraduate program will not be included in the graduate GPA calculation.

$^1$ If students wish to transfer credits from another university to Loyola University Chicago, the program's Graduate director will review the relevant syllabus(es) to determine whether it meets the criteria for a 400 level course or higher.

$^2$ Programs with specialized accreditation requirements that allow programs to offer graduate curriculum to undergraduate students will conform to those specialized accreditation requirements.

$^3$ In rare cases, the Graduate Director may authorize enrollment in a 400-level course for a highly qualified and highly motivated undergraduate, ensuring that the undergraduate's exceptional participation in the graduate class will not diminish in any way the experience of the graduate students regularly enrolled.

$^4$ For example, if a particular course is only offered once every 2-3 years, and a student has demonstrated the necessary ability to be successful, the Graduate Director may allow a student to take a graduate level course to be shared prior to the student being formally admitted to the graduate program. See, also, footnote 4.

$^5$ Students should not, for example, attempt to negotiate themselves out of a writing intensive requirement on the basis of admission to a graduate program.

**Graduation**

Degrees are awarded sequentially. All details of undergraduate commencement are handled in the ordinary way as for all students in the School/College/Institute. Once in the graduate program, students abide...
by the graduation deadlines set forth by the graduate program. Students in these programs must be continuously enrolled from undergraduate to graduate degree program unless given explicit permission by their program for a gap year or approved leave of absence.

**Learning Outcomes**

Students in this program:

- critically evaluate current bodies of knowledge in their field.
- apply culturally responsive practices that engage diverse communities.
- demonstrate knowledge of ethics and social justice.
- hold high expectations and build on the assets of diverse students.
- use research and evidence-based practices to design and implement instruction to meet the individual needs of students.
- apply deep understanding of both content and pedagogy to provide developmentally appropriate instruction to all students.