BA IN BIOLOGY + MAT IN ADOLESCENCE ED: BIOLOGY

Program Overview

Education Coordinator
Latanya Brandon, (845) 257-3118, brandonl@newpaltz.edu

Content Coordinator
Jeff Reinking, (845) 257-3771, reinkinj@newpaltz.edu

Program ID
101C

Credits
120 UG + 28 GR

Program Length
The MAT can be completed in one additional year of study if enrolled full-time, but students must complete the degree within 5 years.

Modality
In-person

Full-time/Part-time
Full-time or Part-time

Transfer Credits
6

Capstone
Practicum

Certification/Licensure
NYSED Initial/Professional Adolescent Education: Biology

Program Description
We have developed this program in response to popular demand from students and parents who have called for a pathway to fulfilling jobs in education and science, and to school districts who report an increasing number of full-time job openings in STEM disciplines. Graduation from the Five-Year Master Plan empowers students with options to choose the career they find most fulfilling, whether that means becoming a science teacher, working as a biologist, or pursuing a Ph.D.

How does it work?

ENROLL in the Five-Year Master Plan and begin taking foundational science courses as a first-year student.

MAINTAIN a 3.0 GPA as you take embedded education courses and pursue your Bachelor of Arts (BA) degree in Biology.

QUALIFY for early admission to the graduate program during your junior year.

EARN your BA degree in four years, while taking education courses to prepare for your accelerated graduate program.

COMPLETE the MAT program, including all student teaching requirements in just one year.

Admission Requirements
To participate in the BA/MAT program in Biology, interested undergraduates should:

1. Submit a Declaration of Major/Change of Major form indicating the BA/MAT program in Biology (major 508A) to the office of Records and Registration (Wooster Hall, rm. 115).
2. Meet with Professor Latanya Brandon to begin selecting courses. Maintain a GPA of 3.0 to fulfill admission requirements for the graduate program.

Early Admission to Graduate Program
During their junior year, students finalize their early admission to the Master of Arts in Teaching program:

- Apply using the link above.
- Create an account (if new to applying) or log in and follow the steps.
- Select the fall term when you would like to begin your graduate coursework.

NOTE: This program only admits for the fall term.

- Select BA Biology/MAT Adolescence Ed: Biology Program (major 101C) as the intended curriculum.

Upload Checklist Items
To expedite a faculty review of an application, students may upload the following items:

- Admission Essay
  - Reflect on a time when your idea or belief was questioned or challenged. Or, conversely, reflect on a time when your idea or belief was validated. What happened? In what way(s) could this time be considered a learning experience?

- As you reflect, please include at least one reference to the School of Education’s Conceptual Framework and discuss how it speaks to your experience.

- Student copies of transcripts* from every college/university attended.

* Full admission REQUIRES the submission of official transcripts and test scores.

Check Your Application Status
- Check your application status through the applicant portal.

Sample undergraduate and graduate plans of study below:

**BA in Biology (major 508C)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>BIO201</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO211</td>
<td>Gen Bio 1 Lab</td>
<td>1</td>
</tr>
<tr>
<td>MAT181</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>ENG170</td>
<td>Writing and Rhetoric</td>
<td>4</td>
</tr>
<tr>
<td>Languages 1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>BIO202</td>
<td>General Biology II</td>
<td>3</td>
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<tr>
<td>BIO212</td>
<td>Gen Bio 2 Lab</td>
<td>1</td>
</tr>
<tr>
<td>GE: The Arts</td>
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<td>3</td>
</tr>
<tr>
<td>GE: Humanities</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Languages 2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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<td><strong>13</strong></td>
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</table>

**BA in Biology + MAT in Adolescence Ed: Biology**
### MAT in Adolescence Ed: Biology (major 101C)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summer (3 Credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select ONE of the following if offered: discipline-specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>education course or an approved course in discipline</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fall (11 Credits)</td>
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</tr>
<tr>
<td>SED543</td>
<td>Science in the Secondary School</td>
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<tr>
<td>SED552</td>
<td>Field Experience II</td>
<td>1</td>
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<tr>
<td>SED525</td>
<td>Digital Literacies and Learning in Secondary Education</td>
<td>1</td>
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<tr>
<td></td>
<td>Spring (14 Credits)</td>
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</tr>
<tr>
<td>SED604</td>
<td>Practicum in Secondary Ed 7-9</td>
<td>6</td>
</tr>
<tr>
<td>SED605</td>
<td>Practicum in Secondary Ed 10-12</td>
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<tr>
<td>SED606</td>
<td>Practicum Seminar</td>
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<tr>
<td>SED553</td>
<td>Field Experience III</td>
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<td></td>
<td>Total Credits</td>
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</table>

1. If students complete 9 graduate credits during year four, then they will need to complete 28 credits in year 5.
2. If students complete 12 graduate credits during year four, then they will need to complete 25 credits in year 5.

#### Academic Standing Requirements for Bachelor’s/Master’s Students

A cumulative GPA of less than 3.0 in graduate-level courses taken in the undergraduate portion of a 4+1 program precludes the student's good standing. Students with GPA of 2.75 to 2.99 strongly advised to reconsider continuing into GR program. Students below 2.75 may not continue and will be de-matriculated from GR program.

#### Graduate Program Requirements

- Review graduate “plan of study” during the first semester after matriculation into the MAT portion of the program.
- Maintain a graduate cumulative grade point average of 3.0 or better with no more than two grades below B-
- Successful completion of practicum during the final semester of study. Students are responsible for their own transportation to the field and student teaching placements and must be prepared to commute up to 45 miles, one way, to these placements.

#### Required Workshops for Certification

Attending workshops designed to assist teachers in:

- preventing violence in the schools (S.A.V.E)
- recognizing symptoms of child abuse and neglect,
- providing a safe and supportive learning environment through the training for Dignity for All Students Act (DASA), and
- by completing the Health & Safety training.

#### New York State Certification Testing requirements

- Obtaining fingerprint clearance. Information packets are available in the Secondary Education department (OM 323). Applicants for certification are asked to provide information about past convictions, misconduct, etc., on the application for a certificate, and the New York State Education Department is authorized to investigate complaints regarding an applicant’s past convictions or any acts which raise a reasonable question as to the individual’s moral character.

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1. Students may take SED541, SED542 or an approved discipline-specific education course.
Students must receive satisfactory scores on the New York State Teacher Certification Examinations. More information on these tests may be obtained at [http://www.nystce.nesinc.com](http://www.nystce.nesinc.com).

Upon graduation, students will receive the Master of Arts in Teaching (MAT) degree. Students will have completed all academic requirements for both initial and professional certification and will be recommended for both certifications. Students will receive their professional certificate after they have completed three years of satisfactory secondary teaching experience in their discipline and notification of such to the State Education Department.

For information on obtaining a teaching credential in New York State, please visit the New York State Education Department website at [http://www.highered.nysed.gov/tcert/](http://www.highered.nysed.gov/tcert/).

### Undergraduate Program Learning Objectives

**BA Biology**

The mission of the BA in Biology program is to produce graduates with a firm foundation in the Biological Sciences who have simultaneously pursued in-depth study in another academic discipline.

**Program Goals:**

- To provide an assortment of relevant high-quality courses from which students can choose.
- To provide insightful and timely advising for students throughout their career at New Paltz
- To provide the flexibility necessary for students to pursue in-depth study in other academic disciplines.

**Learning Outcomes:**

- Students will understand fundamental biological principles
- Students can collect data, present data appropriately and analyze data
- Students can apply information from cognate courses to their coursework in biology (and vice versa)
- Students attend numerous presentations from scientists actively engaged in research
- Students learn to work collaboratively
- Students gain experience with modern lab and field techniques and technology
- Students can solve problems related to course material
- Students will enhance their ability to think quantitatively.

### Graduate Program Learning Objectives

**MAT Adolescence Education: Biology**

Candidates who successfully complete all required components of the MAT Adolescence Biology program at SUNY New Paltz will:

- **Content Knowledge:** Enhance content area through synthesizing scientific conceptual understandings with pedagogical practice and implementation.
- **Planning:** Be able to plan lessons in science that are NYSP-12SLS standards-based, are clear and organized, rely upon a variety of appropriate pedagogical practices, include appropriate technologies, and differentiate instruction that provides opportunities to promote appreciation of diversity, tolerance, and inclusion in safe, democratic, and equitable learning environments.
- **Assessment and P-12 Learning:** Be able to choose, design, and implement authentic and appropriate formative and summative assessments to evaluate student learning, consider assessment data when making instructional decisions, and identify effective or problematic teaching moments as they are occurring in order to facilitate student growth in specified content, cognitive skills, and/or social skills.
- **Pedagogical Practice:** Demonstrate the ability to maximize student learning by incorporating content with pedagogical knowledge, utilizing appropriate and effective technology, and implementing a variety of developmentally and contextually appropriate evidence-based instructional strategies to make learning meaningful and relevant for students while teaching.
- **Dispositions:** Exhibit the knowledge, skills, and dispositions necessary to practice an ethically informed and self-reflective philosophy, participate effectively in institutional change, and develop respectful relationships with students, families, communities and colleagues.
- **Critical Thinking:** Identify, analyze, and evaluate different methods of planning, assessing, and teaching in order to develop well-reasoned arguments that support pedagogical decisions, and transfer these skills to students through the development of higher order thinking lesson development.
- **Information Management:** Use technology and basic research techniques in order to locate, evaluate, and synthesize best-practices concepts in content knowledge, planning, assessment, and pedagogical practice.

### MSEd Adolescence Education: Biology

Candidates who successfully complete all required components of the Adolescence Biology program at SUNY New Paltz will:

- **Content Knowledge:** Enhance content area through synthesizing scientific conceptual understandings with pedagogical practice and implementation.
- **Planning:** Be able to plan lessons in science that are NYSP-12SLS standards-based, are clear and organized, rely upon a variety of appropriate pedagogical practices, include appropriate technologies, and differentiate instruction that provides opportunities to promote appreciation of diversity, tolerance, and inclusion in safe, democratic, and equitable learning environments.
- **Assessment and P-12 Learning:** Be able to choose, design, and implement authentic and appropriate formative and summative assessments to evaluate student learning, consider assessment data when making instructional decisions, and identify effective or problematic teaching moments as they are occurring in order to
facilitate student growth in specified content, cognitive skills, and/or social skills.

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