

# BA BIOLOGY + MAT ADOLESCENCE ED: BIOLOGY AP

## Program Overview

AP Coordinator	Latanya Brandon, (845) 257-3118, <a href="mailto:brandonl@newpaltz.edu">brandonl@newpaltz.edu</a>
Biology Coordinator	Jeff Reinking, (845) 257-3771, <a href="mailto:reinkin@newpaltz.edu">reinkin@newpaltz.edu</a>
Program ID	BA Biology AP (508A), MAT Adolescence Ed: Biology AP (101C)
Credits	
Program Length	The Accelerated Pathway program may be completed in 10 semesters, but students must complete the graduate degree within 5 years.
Modality	In-person
Full-time/Part-time	Full-time
Transfer Credits	9-12 graduate credits taken while an undergraduate may be transferred into the MAT program.
MAT 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 Accelerated Pathway (AP) program 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?

Get started as an undergraduate by declaring the Biology AP major (508A):

- **Meet** with AP advisor, [Latanya Brandon](#), to declare the Biology AP major.
- **Work** with your AP advisor to select three or four graduate courses to take during your senior year.
- **Apply** for the MAT Adolescence Ed: Biology AP program in your senior year.
- **Transfer** 9-12 credits of graduate courses taken as an undergraduate into your graduate program.

## Graduate Admission Requirements

Graduate admission requires submission of:

- Graduate application - select major 101C.
- Admission essay responding to the following prompt:
  - 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.*

- One set of official transcripts for all undergraduate and graduate course work indicating at least a 3.0 cumulative GPA.

## Admission Deadlines

March 1	Fall Admission
October 1	Spring Admission

Accepting on a rolling basis until the program is full. However, applications must at least be started by the deadline or they will not be considered. Applying by the suggested deadlines above ensures an easier registration process. Applicants who are admitted later may find that classes that wish to enroll in are already full.

## Curriculum Requirements

BA Biology AP (508A)		
Code	Title	Credits
Core Requirements (23 Credits)		
BIO201 & BIO211	General Biology I and Gen Bio 1 Lab	4
BIO202 & BIO212	General Biology II and Gen Bio 2 Lab	4
BIO320 & BIO321	Genetics and Genetics Lab	4
BIO322	Evolution	3
CHE201 & CHE211	General Chemistry I and General Chemistry I Lab	4
CHE202 & CHE212	General Chemistry II and General Chemistry II Lab	4
Participation in Lecture Series (6 hours)		
Cognate Requirements (8 Credits)		
Select 8 credits of cognate courses		8
Biology Electives (25 Credits)		
Upper-division (300-level or above) Biology or selected Biochemistry courses and/or BIO296 Departmental Elective, with at least 3 credits in each of the following categories:		25
Environmental Biology		
Evolution & Diversity of Life		
Architecture of Life Course		
Capstone		
Any 400-level Biology course		
Graduate Electives		
Select 9-12 credits of graduate education or biology electives by advisement. *		
SED541	Constructing Scientific Conceptual Knowledge	
SED542	Meaningful Problem Solving in Science	
Graduate Biology Elective		
Total Credits		56

**MAT Adolescence Ed: Biology AP (101C)**

Code	Title	Credits
<b>Transfer Credits</b> GR courses taken as an undergrad*		9
<b>Summer (3 Credits)</b>		
Select ONE of the following if offered: discipline-specific education course or an approved course in discipline		3
<b>Fall (11 Credits)</b>		
SED543	Science in the Secondary School	3
SED552	Field Experience II	1
Integrating ELLs in the School Classroom		3
Advisor Approved SED, SPE, or EDS Elective		3
SED525	Digital Literacies and Learning in Secondary Education	1
<b>Spring (14 Credits)</b>		
SED604	Practicum in Secondary Ed 7-9	6
SED605	Practicum in Secondary Ed 10-12	6
SED606	Practicum Seminar	1
SED553	Field Experience III	1
<b>Total Credits</b>		<b>37</b>

\* If students complete 9 graduate credits during year four, then they will need to complete an additional 28 graduate credits to earn the MAT degree.

If students complete 12 graduate credits during year four, then they will need to complete an additional 25 graduate credits to earn the MAT degree.

## 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 an accelerated pathway program precludes the student's good standing. Students with a cumulative GPA between 2.75 to 2.99 are strongly advised to reconsider continuing into the graduate program. Students with a cumulative GPA 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
- Completing the Health & Safety training.

## Graduation Checklist

- Apply for graduation via [my.newpaltz.edu#under](http://my.newpaltz.edu#under) "Graduation" tab according to the schedule in the [academic calendar](#).
- Resolve any pending admission conditions (outlined in your acceptance letter) and/or missing documents if applicable.
- Review your progress report via [my.newpaltz.edu](http://my.newpaltz.edu) to ensure that you have completed all program requirements.
- Remember that only two grades below a B- may be applied to your [plan of study](#).
- Contact your advisor if you need to amend your plan#or [processtransfer credit](#).
- Ensure that you are in [good academic standing](#)#with a#GPA (Grade Point Average)#of 3.0 or higher.
- Pass your capstone or culminating assessment.
- Complete your degree within the [specified time limit](#)#outlined in the Program Overview.

## 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.
- 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>.

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/>.

## 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 and Reasoning:** Clearly articulate an issue or problem; identify, analyze, and evaluate ideas, data, and arguments as they engage in planning, assessing, and teaching; and acknowledge limitations such as perspective and bias as they develop well-reasoned arguments to form judgements and/or draw conclusions that support pedagogical decisions.
- **Information Literacy:** Locate appropriate resources effectively using appropriate tools; evaluate information with an awareness of authority, validity, and bias; and demonstrate an understanding of the ethical dimensions of information use, creation, and dissemination as they relate to the field of education.

### 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.
- **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 and Reasoning:** Clearly articulate an issue or problem; identify, analyze, and evaluate ideas, data, and arguments as

they engage in planning, assessing, and teaching; and acknowledge limitations such as perspective and bias as they develop well-reasoned arguments to form judgements and/or draw conclusions that support pedagogical decisions.

- **Information Literacy:** Locate appropriate resources effectively using appropriate tools; evaluate information with an awareness of authority, validity, and bias; and demonstrate an understanding of the ethical dimensions of information use, creation, and dissemination as they relate to the field of education.