Program Revision Proposal: Changes to an Existing Program

Form 3A

Version 2016-10-13

SUNY approval and SED registration are required for many changes to registered programs. To request a change to a registered program leading to an undergraduate degree, a graduate degree, or a certificate that does not involve the creation of a new program,[1] a Chief Executive or Chief Academic Officer must submit **a signed cover letter and this completed form** to the SUNY Provost at *program.review@suny.edu*.

Section 1. General Information		
a) Institutional Information	Institution's 6-digit SED Code:	**210500**
	Institution's Name:	University at Albany
	Address:	*1400 Washington Avenue, Albany, NY 12222*
b) Program Locations	List each campus where the entire program will be offered (with each institutional or branch campus 6-digit SED Code): 210500	
	List the name and address of off-campus locations (i.e., extension sites or extension centers) where courses will offered, **or check here [X] if not applicable**:	
c) Registered Program to be Changed	Program Title:	Biology
	SED Program Code	02944
	Award(s) (e.g., A.A., B.S.):	B.S.
	Number of Required Credits:	Minimum [120] If tracks or options, largest minimum [ ]
	HEGIS Code:	0401
	CIP 2010 Code:	26.0101
	Effective Date of Change:	Fall 2021
	Effective Date of Completion[2]	Spring 2025
	Jointly Registered Programs to be Updated:	89187, 28859, 82210, 19187
d) Campus Contact	Name and title: Kaitlyn Beachner, Staff Associate for Undergraduate Academic Programs Telephone and email: 518 – 442 – 3941; kbeachner@albany.edu	
e) Chief Executive or Chief Academic Officer Approval	**Signature affirms that the proposal has met all applicable campus administrative and shared governance procedures for consultation, and the institution's commitment to support the proposed program. *E-signatures are acceptable.*** Name and title: Carol Kim, Ph.D., Senior Vice President for Academic Affairs & Provost Signature and date: [signature] 10/25/21	
	If the program will be registered jointly[3] with one or more other institutions, provide the following information for each institution:	
	Partner institution's name and 6-digit SED Code: SUNY Optometry, 241500 Name, title, and signature of partner institution's CEO (or **append** a signed letter indicating approval of this proposal): David Troilo, Ph.D., Vice President and Dean for Academic Affairs	

[1] To propose changes that would create a new program, Form 3B, Creating a New Program from Existing Program(s), is required.
[2] If the current program(s) must remain registered until enrolled students have graduated, the anticipated effective date by which continuing students will have completed the current version of the program(s).
[3] If the partner institution is non-degree-granting, see SED's CEO Memo 94-04.

	David Troiano 8/26/2021
	Partner institution's name and 6-digit SED Code: Albany Law School, 402000 Name, title, and signature of partner institution's CEO (or **append** a signed letter indicating approval of this proposal): Alicia Ouellette, Dean and President – please see appended letter

Section 2. Program Information

Section 2.1. Changes in Program Content

[ ] No changes in program content. *Proceed to Section 2.2.*

a) Check all that apply. Describe each proposed change and why it is proposed.

[X] Cumulative change from SED's last approval of the registered program of one-third or more of the minimum credits required for the award (e.g., 20 credits for associate degree programs, 40 credits for bachelor's degree programs)
[ ] Changes in a program's focus or design
[ ] Adding or eliminating one or more options, concentrations or tracks
[ ] Eliminating a requirement for program completion (such as an internship, clinical placement, cooperative education, or other work or field-based experience). Adding such requirements must remain in compliance with SUNY credit cap limits.
[ ] Altering the liberal arts and science content in a way that changes the degree classification of an undergraduate program, as defined in Section 3.47(c)(1-4) of Regents Rules

Description of Change: Changes were made to the program to increase academic rigor and to allow for advanced courses to count towards the major. Changed math options by outlining only a few course options for students to choose from, rather than a long list of options to ensure graduates have the math needed to be successful within the field. Upper level biology course offerings have been changed based on faculty expertise and student interest. In addition, an honors program has been developed for students who excel within the program.

b) Provide a side-by-side comparison of all the courses in the existing and proposed revised program that clearly indicates all new or significantly revised courses, and other changes.

2008 Biology B.S. Requirements:		2021 Proposed Changes to Biology B.S. Requirements:	
Combined major and minor sequence with a minimum of 66 credits to include:		*Combined major and minor sequence with a minimum of 67 credits to include:*	
Required Biology Courses:		***Required Biology Courses:***	
Select one	BIO 110 – General Biology I (4)	ABIO 130 (formerly ABIO 121) - General Biology: Molecular and Cell Biology and Genetics (3)	
	BIO 111 – General Biology II (4)	ABIO 131 (formerly ABIO 120) – General Biology: Ecology, Evolution, and Physiology (3)	
	BIO 111Z – General Biology II (4) *writing intensive*	*Removed option*	
		ABIO 201 – Introduction to Biological Investigations I (1)	
		ABIO 202Z – Introduction to Biological Investigations II (1)	
BIO 212Y – Introductory Genetics (4)		ABIO 212Y – Introductory Genetics (4)	
		ABIO 301 – Molecular Cell Biology (3)	
		ABIO 330 – Principles of Ecology and Evolution (3)	
BIO 365 – Biological Chemistry (3)		ABIO 365 – Biological Chemistry I (3)	
BIO 402 – Evolution (3)		*Elective option in 2021*	
Required Chemistry Courses:		***Required Chemistry Courses:***	
Select one	ACHM 120 – General Chemistry I (3)	*Select one*	ACHM 120 – General Chemistry I (3)
	ACHM 130 – Advanced General Chemistry I (3)		ACHM 130 – Advanced General Chemistry I (3)
			TCHM 130 – Honors Adv. General Chemistry I (3)
Select one	ACHM 121 – General Chemistry II (3)	*Select one*	ACHM 121 – General Chemistry II (3)
	ACHM 131 – Advanced General Chemistry II (3)		ACHM 131 – Advanced General Chemistry II (3)
			TCHM 131 – Honors Adv. General Chemistry II (3)
ACHM 124 – General Chemistry Laboratory I (1) and ACHM 125 – General Chemistry Laboratory II (1)		ACHM 124 – General Chemistry Laboratory I (1) and ACHM 125 – General Chemistry Laboratory II (1)	
ACHM 220 – Organic Chemistry I (3)		ACHM 220 – Organic Chemistry I (3)	
ACHM 221 – Organic Chemistry II (3)		ACHM 221 – Organic Chemistry II (3)	
ACHM 222 – Organic Chemistry Laboratory I (1)		ACHM 222 – Organic Chemistry Laboratory I (1)	
ACHM 223 – Organic Chemistry Laboratory II (1)		ACHM 223 – Organic Chemistry Laboratory II (1)	
Required Physics Courses:		***Required Physics Courses:***	
Select one	APHY 105 – General Physics I (3)	*Select one*	APHY 105 – General Physics I (3)
	APHY 140 – Physics I: Mechanics (3)		APHY 140 – Physics I: Mechanics (3)
			APHY 142 – Physics I: Advanced Mechanics (3)
Select one	APHY 106 – General Physics Lab I (1)	*Select one*	APHY 106 – General Physics Lab I (1)
	APHY 145 – Physics Lab I (1)		APHY 145 – Physics Lab I (1)
Select one	APHY 108 – General Physics II (3)	*Select one*	APHY 108 – General Physics II (3)
	APHY 150 – Physics II: Electromagnetism (3)		APHY 150 – Physics II: Electromagnetism (3)
			APHY 152 – Physics II: Advanced Electromagnetism (3)
Select one	APHY 109 – General Physics Lab II (1)	*Select one*	APHY 109 – General Physics Lab II (1)
	APHY 155 – Physics Lab II (1)		APHY 155 – Physics Lab II (1)
Required Math Courses (6 cr.); select from list below:		***Required Math Courses:***	
		Select one pair of courses	AMAT 108 – Elementary Statistics (3)
MAT 111 – Algebra and Calculus II (4)			AMAT 111 – Algebra and Calculus II (4)
MAT 108Y – Elementary Statistics (3)			AMAT 108 – Elementary Statistics (3)
MAT 112Y – Calculus I (4)			AMAT 112 – Calculus I (4)
			AMAT 111 – Algebra and Calculus II (4)
MAT 113Y – Calculus II (4)			AMAT 113 – Calculus II (4)
			AMAT 112 – Calculus I (4)
			AMAT 113 – Calculus II (4)
TMAT 118 – Honors Calculus I (3)		*Removed option*	
TMAT 119 – Honors Calculus II (3)		*Removed option*	
MAT 106Y – Survey of Calculus (3)		*Removed option*	
MAT 109Y – Applied Matrix Algebra (3)		*Removed option*	
MAT 214 – Calculus of Several Variables (4)		*Removed option*	
MAT 220 – Linear Algebra (3)		*Removed option*	

MAT 221 – Introduction to Discrete Mathematics	*Removed option*
MAT 301 – Theory of Interest (3)	*Removed option*
MAT 308 – Topics in Statistical Inference (3)	*Removed option*
MAT 311 – Ordinary Differential Equations (3)	*Removed option*
MAT 312 – Basic Analysis (3)	*Removed option*
MAT 314 – Analysis for Applications I (3)	*Removed option*
MAT 315 – Analysis for Applications II (3)	*Removed option*
MAT 326 – Classical Algebra (3)	*Removed option*
MAT 327 – Elementary Abstract Algebra (3)	*Removed option*
MAT 331 – Transformation Geometry (3)	*Removed option*
MAT 342 – Elementary Topology (3)	*Removed option*
MAT 362 – Probability for Statistics (3)	*Removed option*
MAT 363 – Statistics (3)	*Removed option*
MAT 367/Z – Discrete Probability (3)	*Removed option*
MAT 374 – Operations Research (3)	*Removed option*
MAT 401 – Numerical Analysis (3)	*Removed option*
MAT 403 – Life Contingencies I (3)	*Removed option*
MAT 404 – Life Contingencies II (3)	*Removed option*
MAT 409 – Vector Analysis (3)	*Removed option*
MAT 412/Z – Complex Variables for Applications (3)	*Removed option*
MAT 413/Z – Advanced Calculus I (3)	*Removed option*
MAT 414 – Advanced Calculus II (3)	*Removed option*
MAT 416 – Partial Differential Equations (3)	*Removed option*
MAT 420 – Abstract Algebra (3)	*Removed option*
MAT 424 – Advanced Linear Algebra (3)	*Removed option*
MAT 425 – Number Theory (3)	*Removed option*
MAT 432 – Foundations of Geometry (3)	*Removed option*
MAT 441 – Introduction to Algebraic Topology (3)	*Removed option*
MAT 442 – Introduction to Differential Geometry (3)	*Removed option*
MAT 452 – History of Mathematics (3)	*Removed option*
MAT 464 – Applied Stochastic Process (3)	*Removed option*
MAT 465 – Applied Statistics (3)	*Removed option*
MAT 467 – Continuous Probability and Mathematical Statistics (3)	*Removed option*
MAT 468 – Mathematical Statistics (3)	*Removed option*
MAT 469 – Actuarial Probability and Statistics (1)	*Removed option*
MAT 482 – Senior Seminar (3)	*Removed option*
MAT 487 – Topics in Modern Mathematics (3)	*Removed option*
MAT 497 – Independent Study in Mathematics (1-3)	*Removed option*
MAT 499Z – Undergraduate Thesis (3)	*Removed option*
18 additional credits in biology; must include at least 3 laboratory courses, and at least one course from each of the following 3 categories: *Molecular-Cell Biology (marked with * below)* *Development-Function (marked with * below)* *Ecology-Behavior-Diversity (marked with * below)*	***15 additional credits in biology at the 300 or above level and must include at least 3 courses which are partially or exclusively laboratory courses:***
BIO 209 – The Human Organism (3)	*Removed option*
BIO 216 – Perspectives in Life Sciences (3)	*Removed option*
BIO 217 – Cell Biology (3) *	*Core requirement in 2019 (listed above)*
BIO 218 – Introduction to Plant Biology (3) *	*Removed option*
BIO 219 – Viruses and Human Society (3)	*Removed option*
BIO 222 – Biological Consequences of Global Climate Change (2)	*Removed option*
BIO 302Z – Cell Biology Laboratory (2) *	ABIO 302Z – Cell Biology Laboratory (2)
BIO 303 – Developmental Biology (3) *	ABIO 303 – Developmental Biology (3)
BIO 305 – Developmental Biology Laboratory (2) *	ABIO 305 – Developmental Biology Laboratory (2)
BIO 307 – Exercise Physiology (3)	*Removed option*
ABIO 308 – Parasitic Diseases and Human Welfare (3)	*Removed option*

	ABIO 309 - Genetics Laboratory (2)
BIO 314 – Microbiology (3) *	ABIO 314 – Microbiology (3)
BIO 315 – Microbiology Laboratory (3) *	ABIO 315 – Microbiology Laboratory (3)
BIO 316 – Biogeography (3) *	*Removed option*
BIO 317 – Comparative Animal Physiology (3) *	*Removed option*
BIO 318 – Human Population Genetics (3)	ABIO 318 – Human Population Genetics (3)
BIO 319Z – Field Biology (3)	*Removed option*
BIO 320 – Ecology (3) *	ABIO 401 – Ecology (3)
BIO 321 – The Insects (2) *	*Removed option*
BIO 325 – Comparative Anatomy of Chordates (4) *	*Removed option*
BIO 326 – Environmental Microbiology Laboratory (2) *	ABIO 326 – Environmental Microbiology Laboratory (2)
BIO 327 – Experimental Ecology (3) *	*Removed option*
	ABIO 328 – Invertebrate Ecology Laboratory (2)
BIO 329 – Genetics of Human Disease (3) *	ABIO 329 – Genetics of Human Disease (3)
BIO 335 – Immunology (3) *	ABIO 335 – Immunology (3)
BIO 336Z – Laboratory in Immunology (2) *	ABIO 336 – Laboratory in Immunology (2)
BIO 341 – Neurobiology (3) *	ABIO 341 – Neurobiology (3)
BIO 342 – Neurobiology Laboratory (2) *	BIO 342 – Neurobiology Laboratory (2)
BIO 343 – Evolutionary Biology and Human Health (3) *	ABIO 343 – Evolutionary Biology and Human Health (3)
	ABIO 344 – Mammalian Anatomy Laboratory (2)
BIO 365 – Biological Chemistry I (3)	*Core requirement in 2019 (listed above)*
BIO 366 – Biological Chemistry II (3)	ABIO 366 – Biological Chemistry II (3)
BIO 367 – Biochemistry Laboratory (2) *	ABIO 367 – Biochemistry Laboratory (2)
	ABIO 375 – Principles of Human Disease (3)
BIO 389Z – Writing in Biology (1)	ABIO 389Z – Writing in Biology (1)
	ABIO 395 – Undergraduate Teaching Experience in Biological Sciences (1-2)
BIO 397 – Topics in Biology (1-3)	ABIO 397 – Topics in Biology (1-3)
BIO 398 – Topics in Biology, with Laboratory (1-3)	ABIO 398 – Topics in Biology, with Laboratory (1-3)
BIO 402 – Evolution (3)	ABIO 402 – Evolution (3)
BIO 406 – Vertebrate Histology (3) *	*Removed option*
BIO 410 – Human Physiology (3) *	ABIO 410 – Human Physiology (3)
BIO 411Z – Human Physiology Laboratory (2) *	ABIO 411Z – Human Physiology Laboratory (2)
	ABIO 413 – Biology of Stem Cells (3)
BIO 425 – Molecular Biology (3) *	ABIO 425 – Molecular Biology (3)
BIO 426 – Laboratory in Molecular Biology (2) *	ABIO 426 – Laboratory in Molecular Biology (2)
	ABIO 429 – Molecular Virology (3)
BIO 432 – Animal Behavior (3) *	*Removed option*
BIO 435 – Methods in Biotechnology (2)	ABIO 435 – Methods in Biotechnology (2)
BIO 441 – Molecular Neurobiology (3) *	ABIO 441 – Molecular Neurobiology (3)
BIO 442 – Restoration Ecology (3) *	*Removed option*
BIO 443 – Restoration Ecology Laboratory (1) *	*Removed option*
	ABIO 447 – Cellular Aspects of Neurophysiology (3)
BIO 450 – Biodiversity (3)	*Removed option*
BIO 452 – Plant Anatomy (3)	*Removed option*
	Removed option
	ABIO 454 – Introduction to the Biomanufacturing of Pharmaceuticals (3)
BIO 455 – Plant Ecology (3) *	*Removed option*
BIO 456 – Plant Ecology Laboratory (1) *	*Removed option*
	ABIO 460 – Neural Basis of Behavior (3)
	ABIO 475 – Forensic Biology I (3)
	ABIO 477 – Forensic Science (3)
	ABIO 478 – Instrumental and Biochemical Analysis (2)
	ABIO 480 – Forensic Chemistry and Toxicology (3)
	ABIO 490 – Topics in Neuroscience (3)
	ABIO 496 – Internship in Biological Sciences (1-3)

<table>
<tr><td>ABIO 499/Z – Supervised Research for Seniors (2-4)</td><td colspan="2">ABIO 499/Z – Supervised Research for Seniors (2-4)</td></tr>
<tr><td>BIO 399 and 399Z – Supervised Research for Juniors (1-3) and
BIO 499 and 499Z – Supervised Research for Seniors (1-4) may contribute up to a total of 4 credits over at least 2 semesters.

Courses in the combined major/minor sequence must include at least 6 credits at the 300-level and at least 3 credits at the 400-level or above.</td><td colspan="2">Credits in A BIO 399/399Z and 499/499Z may be used to fulfill the requirement for 1 laboratory course if the student completes at least 4 credits over at least 2 semesters. A BIO 399/399Z and 499/499Z may contribute a total of 4 credits towards the major.

Courses in the combined major/minor sequence must include at least 6 credits at the 300 level and at least 3 credits at the 400 level or above.</td></tr>
<tr><td></td><td colspan="2">Optional Honors Track:
Students within Honors Track required to take:</td></tr>
<tr><td></td><td colspan="2">6 Credits of either:
ABIO 399/399Z – Supervised Research for Juniors (2-3)
Or
ABIO 499/499Z – Supervised Research for Seniors (2-4)</td></tr>
<tr><td></td><td rowspan="10">3 Credits of a 500 level course in place of a 400 level course.
500 Course Options Include:</td><td>ABIO 504 – Cell Biology I (3)</td></tr>
<tr><td></td><td>ABIO 505 – Cell Biology II (3)</td></tr>
<tr><td></td><td>ABIO 523 – Biochemistry and Biomolecular Structure (3)</td></tr>
<tr><td></td><td>ABIO 524 – Advanced Molecular Biology (3)</td></tr>
<tr><td></td><td>ABIO 529 – Molecular Virology (3)</td></tr>
<tr><td></td><td>ABIO 540/STA 569 – Principles of Bioinformatics (3)</td></tr>
<tr><td></td><td>ABIO 541 – Molecular Neurobiology (3)</td></tr>
<tr><td></td><td>ABIO 547 – Cellular Aspects of Neurophysiology (3)</td></tr>
<tr><td></td><td>ABIO 554 – Introduction to the Biomanufacturing of Pharmaceuticals (3)</td></tr>
</table>

c) For each new or significantly revised course, **provide** a syllabus at the end of this form, and, on the ***SUNY Faculty Table*** provide the name, qualifications, and relevant experience of the faculty teaching each new or significantly revised course. NOTE: *Syllabi for all courses should be available upon request. Each syllabus should show that all work for credit is college level and of the appropriate rigor. Syllabi generally include a course description, prerequisites and corequisites, the number of lecture and/or other contact hours per week, credits allocated (consistent with SUNY policy on credit/contact hours), general course requirements, and expected student learning outcomes.*

ABIO 201 – Introduction to Biological Investigations I (1)
ABIO 202Z – Introduction to Biological Investigations II (1)
ABIO 296 – Biological Sciences with Laboratory (2-4)
ABIO 301 – Molecular Cell Biology (3)
ABIO 309 - Genetics Laboratory (2)
ABIO 328 – Invertebrate Ecology Laboratory (2)
ABIO 330 – Principles of Ecology and Evolution (3)
ABIO 344 – Mammalian Anatomy Laboratory (2)
ABIO 367 – Biochemistry Laboratory (2)
ABIO 375 – Principles of Human Disease (3)
ABIO 395 – Undergraduate Teaching Experience in Biological Sciences (1-2)
ABIO 399/399Z – Supervised Research for Juniors (2-3)
ABIO 413 – Biology of Stem Cells (3)
ABIO 429 – Molecular Virology (3)
ABIO 447 – Cellular Aspects of Neurophysiology (3)
ABIO 454 – Introduction to the Biomanufacturing of Pharmaceuticals (3)
ABIO 460 – Neural Basis of Behavior (3)
ABIO 475 – Forensic Biology I (3)
ABIO 477 – Forensic Science (3)
ABIO 478 – Instrumental and Biochemical Analysis (2)
ABIO 480 – Forensic Chemistry and Toxicology (3)
ABIO 490 – Topics in Neuroscience (3)
ABIO 496 – Internship in Biological Sciences (1-3)
ABIO 504 – Cell Biology I (3)
ABIO 505 – Cell Biology II (3)
ABIO 523 – Biochemistry and Biomolecular Structures (3)
ABIO 524 – Advanced Molecular Biology (3)
ABIO 529 – Molecular Virology (3)
ABIO 540/STA 569 – Principles of Bioinformatics (3)
ABIO 541 – Molecular Neurobiology (3)
ABIO 554 – Introduction to Biomanufacturing in Pharmaceuticals
APHY 142 – Physics I: Advanced Mechanics (3)
APHY 150 – Physics II: Electromagnetism (3)
APHY 155 – Physics Lab II (1)
TBIO 260 – Honors Neural Basis of Behavior (3)
TCHM 130 – Honors Adv. General Chemistry I (3)
TCHM 131 – Honors Adv. General Chemistry II (3)

d) What are the additional costs of the change, if any? If there are no anticipated costs, explain why.

The new courses are being taught by existing faculty, as such there are no extra costs associated with the proposed changes.

Section 2.2. Other Changes

Check all that apply. Describe each proposed change and why it is proposed.

[ ] Program title
[ ] Program award
[ ] Mode of delivery
NOTES: *(1) If the change in delivery enables students to complete 50% of more of the program via distance education, submit a Distance Education Format Proposal* as part of this proposal. *(2) If the change involves adding an accelerated version of the program that impacts financial aid eligibility or licensure qualification, SED may register the version as a separate program.*
[ ] Format change(s) (e.g., from full-time to part-time), based on SED definitions, for the **entire** program
1) State proposed format(s) and consider the consequences for financial aid
2) Describe availability of courses and any change in faculty, resources, or support services.
[ ] A change in the total number of credits in a certificate or advanced certificate program
[ ] Any change to a registered licensure-qualifying program, or the addition of licensure qualification to an existing program. **Exception:** Small changes in the required number of credits in a licensure-qualifying program that do not involve a course or courses that satisfy one of the required content areas in the profession.

Section 3. Program Schedule and Curriculum

a) For **undergraduate programs**, complete the ***SUNY Undergraduate Program Schedule*** to show the sequencing and scheduling of courses in the program. If the program has separate tracks or concentrations, complete a ***Program Schedule*** for each one.

NOTES: *The* ***Undergraduate Schedule*** *must show* ***all curricular requirements*** *and demonstrate that the program conforms to SUNY's and SED's policies.*

- *It must show how a student can complete all program requirements within SUNY credit limits, unless a longer period is selected as a format in Item 2.1(c): two years of full-time study (or the equivalent) and 64 credits for an associate degree, or four years of full-time study (or the equivalent) and 126 credits for a bachelor's degree. Bachelor's degree programs should have at least 45 credits of upper division study, with 24 in the major.*
- *It must show how students in A.A., A.S. and bachelor's programs can complete, within the first two years of full-time study (or 60 credits), no fewer than 30 credits in approved SUNY GER courses in the categories of Basic Communication and Mathematics, and in at least 5 of the following 8 categories: Natural Science, Social Science, American History, Western Civilization, Other World Civilizations, Humanities, the Arts and Foreign Languages*
- *It must show how students can complete Liberal Arts and Sciences (LAS) credits appropriate for the degree.*
- *When a SUNY Transfer Path applies to the program, it must show how students can complete the number of SUNY Transfer Path courses shown in the Transfer Path Requirement Summary within the first two years of full-time study (or 60 credits), consistent with SUNY's Student Seamless Transfer policy and MTP 2013-03.*
- *Requests for a program-level waiver of SUNY credit limits, SUNY GER and/or a SUNY Transfer Path require the campus to submit a Waiver Request –with compelling justification(s).*

EXAMPLE FOR ONE TERM: Undergraduate Program Schedule

Term 2: Fall 20xx	Credits per classification						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Prerequisite(s)**
ACC 101 Principles of Accounting	4			4	4		
MAT 111 College Mathematics	3	M	3	3			MAT 110
CMP 101 Introduction to Computers	3						
HUM 110 Speech	3	BC	3			X	
ENG 113 English 102	3	BC	3				
Term credit total:	16	6	9	7	4		

b) *For* ***graduate programs****, complete the* ***SUNY Graduate Program Schedule****. If the program has separate tracks or concentrations, complete a* ***Program Schedule*** *for each one.*

NOTE: *The* ***Graduate Schedule*** *must include all curriculum requirements and demonstrate that expectations from Part 52.2(c)(8) through (10) of the Regulations of the Commissioner of Education are met.*

SUNY Undergraduate Program Schedule (***OPTION: You can paste an Excel version of this schedule AFTER this line, and delete the rest of this page.)***

Program/Track Title and Award: Biology B.S.

a) Indicate **academic calendar type**: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

b) **Label each term in sequence**, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

c) **Name of SUNY Transfer Path, if one exists: Biology** **See Transfer Path Requirement Summary for details**

d) Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed. **Complete all columns that apply to a course.**

Term 1:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 130 – General Biology: Molecular and Cell Biology and Genetics	3	NS	3	3	3		
ACHM 120 – General Chemistry I OR ACHM 130 – Advanced General Chemistry I OR TCHM 130 – Honors Advanced General Chemistry I	3	NS	3	3	3		
ACHM 124 – General Chemistry Laboratory	1	NS	1	1	1		ACHM 120 or 130 or TCHM 130
UUNI 110 – Writing and Critical Inquiry	3	BC	3				
General Elective: Foreign Languages	3	FL	3				
General Education: Arts	3	AR	3				
Term credit totals:	16	16	16	7	7		

Term 2:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 131 – General Biology: Ecology, Evolution and Physiology	3	NS	3	3	3		
ACHM 121 – General Chemistry II OR ACHM 131 Advanced General Chemistry II OR TCHM 131 – Honors Advanced General Chemistry II	3	NS	3	3	3		ACHM 120 or 130 or TCHM 130
ACHM 124 – General Chemistry Laboratory	1	NS	1	1	1		ACHM 121 or 131 or TCHM 131
General Education: Social Sciences	3	SS	3				
General Education: US History	3	AH	3				
General Education: International Perspective	3	OW	3				
Term credit totals:	16	16	16	7	7		

Term 3:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 201 – Introduction to Biological Investigations	1		1	1	1		ABIO 130
ABIO 212Y – Introductory Genetics	4		4	4	4		ABIO 1301 and ABIO 131
ACHM 220 – Organic Chemistry 1	3		3	3	3		
ACHM 222 – Organic Chemistry I Laboratory	1		1	1	1		ACHM 220
Math Selective within Major Requirements (1 of 2)	3	M	3	3	3		
General Education: Local Requirement, Challenges of the 21st Century	3		3				
Term credit totals:	15	3	15	12	12		

Term 4:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 202Z – Introduction to Biological Investigations II	1		1	1	1		ABIO 131
ABIO 301 Cell Biology	3			3			ABIO 130 and ABIO 131
ACHM 221 – Organic Chemistry II	3		3	3	3		ACHM 220
ACHM 223 – Organic Chemistry Laboratory	1		1	1	1		ACHM 221
Math Selective within Major Requirements (2 of 2)	4		4	4	4		
General Education: Humanities	3	H	3				
Term credit totals:	15	3	12	12	9		

Term 5:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 330 – Principles of Ecology and Evolution	3			3	3		ABIO 212Y
APHY 105 – General Physics I OR APHY 140 – Physics I: Mechanics OR	3	NS	3	3	3		

Term 6:	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
Biology Elective – Upper Level (2 of 5)	3			3			
Biology Elective – Upper Level (3 of 5) w/ Laboratory Requirement	3			3			

APHY 142- Physics I: Advanced Mechanics																
APHY 106 – General Physics Lab I OR APHY 145 – Physics Lab	1		1	1	1		APHY 105 or 140 or 142		APHY 108 – General Physics II OR APHY 150 – Physics II: Electromagnetism OR APHY 152 – Physics II: Advanced Electromagnetism	3	NS	3	3			APHY 105 or 140 or 142
Biology Elective – Upper Level (1 of 5)	3			3	3				APHY 109 – General Physics Lab II OR APHY 155 – Physics Lab II	1		1	1			APHY 108 or 150 or 152
Free Elective – Upper Level	3								Free Elective – Upper Level	3						
Free Elective – Upper Level	3								Free Elective – Upper Level	3						
Term credit totals:	16	3	4	10	10				Term credit totals:	16	3	4	10			
Term 7:	See KEY.								**Term 8:**	See KEY.						
Course Number & Title	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**		**Course Number & Title**	**Cr**	**GER**	**LAS**	**Maj**	**TPath**	**New**	**Co/Prerequisites**
ABIO 365 – Biological Chemistry	3			3			ABIO 212Y, ACHM 220 and ACHM 221		Biology Elective – Upper Level (5 of 5) w/ Laboratory Requirement	3			3			
Biology Elective – Upper Level (4 of 5) w/ Laboratory Requirement	3			3					Free Elective – Upper Level	3						
Free Elective	3								Free Elective – Upper Level	3						
Free Elective – Upper Level	3								Free Elective	3						
Free Elective	3															
Term credit totals:	15			6					Term credit totals:	12			3			

Program Totals (in credits):	**Total Credits: 121**	**SUNY GER: 44**	**LAS: 67**	**Major: 67**	**Elective & Other: 30**	**Upper Division: 45**	**Upper Division Major: 24**	**Number of SUNY GER Categories:** **9**

KEY Cr: credits **GER:** SUNY General Education Requirement (Enter Category Abbreviation) **LAS:** Liberal Arts & Sciences (Enter credits) **Maj:** Major requirement (Enter credits) **TPath:** SUNY Transfer Path Courses (Enter credits) **New:** new course (Enter X) **Co/Prerequisite(s):** list co/prerequisite(s) for the noted courses **Upper Division:** Courses intended primarily for juniors and seniors **SUNY GER Category Abbreviations:** American History (AH), Basic Communication (BC), Foreign Language (FL), Humanities (H), Math (M), Natural Sciences (NS), Other World Civilizations (OW), Social Science (SS), The Arts (AR), Western Civilization (WC)

SUNY Graduate Program Schedule ***OPTION:*** ***You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.)***

Program/Track Title and Award:_____

a) Indicate **academic calendar** type: [ ] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

b) **Label each term in sequence**, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

c) Use the table to show **how a typical student may progress through the program**; copy/expand the table as needed.

d) Complete the last row to show program totals and comprehensive, culminating elements. **Complete all columns that apply to a course.**

Term 1:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 2:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 3:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 4:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 5:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 6:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 7:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites**
Term credit total:			

Term 8:			
Course Number & Title	**Credits**	**New**	**Co/Prerequisites)**
Term credit total:			

Program Total:	**Total Credits:**	**Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable:**

New: X if new course **Prerequisite(s)**: list prerequisite(s) for the listed courses

Section 4. SUNY Faculty Table

a) If applicable, provide information on faculty members who will be teaching new or significantly revised courses in the program. Expand the table as needed.

b) Append at the end of this document position descriptions or announcements for each to-be-hired faculty member

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	**% of Time Dedicated to This Program**	**Program Courses Which May Be Taught (Number and Title)**	**Highest and Other Applicable Earned Degrees (include College or University)**	**Discipline(s) of Highest and Other Applicable Earned Degrees**	**Additional Qualifications: List related certifications and licenses and professional experience in field.**
PART 1. Full-Time Faculty					
Thomas J. Begley Professor	100%	ABIO 454/554 Introduction to the Biomanufacturing of Pharmaceuticals	Ph.D. University of Albany, SUNY	Molecular, Cellular, Developmental and Neurobiology	
J. Andrew Berglund Professor	100%	ABIO 540 Principles of Bioinformatics	Ph.D. Brandeis University	Biochemistry	
Pauline Carrico Instructional Support Specialist	100%	ABIO 296 Biological Sciences with Laboratory, ABIO 309 Genetics Laboratory, ABIO 328 Invertebrate Ecology Laboratory	Ph.D. University of Albany, SUNY	Molecular, Cellular, Developmental and Neurobiology	
Haijun Chen Associate Professor	100%	ABIO 505 Cell Biology II	Ph.D. Max Plank Institute / Friedrich-Schiller University	Physiology and Biophysics	
Richard Cunningham Professor	100%	ABIO 496 Internship in Biological Sciences ABIO 523 Biochemistry and Biomolecular Structure	Ph.D. Johns Hopkins University	Biology	
Keith Earle Associate Professor	20%	APHY 155 – Physics Lab II	Ph.D. Cornell University	Experimental Physics	
Paolo Forni Associate Professor	100%	ABIO 505 Cell Biology II	Ph.D. University of Turin	Biochemistry and Biotechnology	
Elise Gervais Lecturer	100%	ABIO 375 Principles of Human Disease, ABIO 395 Undergraduate	Ph.D. University of Albany, SUNY	Molecular, Cellular, Developmental and Neurobiology	

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	**% of Time Dedicated to This Program**	**Program Courses Which May Be Taught (Number and Title)**	**Highest and Other Applicable Earned Degrees (include College or University)**	**Discipline(s) of Highest and Other Applicable Earned Degrees**	**Additional Qualifications: List related certifications and licenses and professional experience in field.**
		Teaching Experience in Biological Sciences			
Christine Gervasi Instructional Support Specialist	100%	ABIO 201 Introduction to Biological Investigations I, ABIO 202Z – Introduction to Biological Investigations II	Ph.D. University of Albany, SUNY	Molecular, Cellular, Developmental and Neurobiology	
Arati Iyengar Lecturer	100%	ABIO 475 Forensics Biology I	Ph.D. University of Southampton	Biological Sciences	
Alexander Khmaladze Assistant Professor	20%	APHY 142 Physics I: Advanced Mechanics	Ph.D. University of South Florida	Applied Physics	
William A. Lanford Professor	20%	APHY 150 Physics II: Electromagnetism	Ph.D. University of Rochester	Physics	
Melinda Larsen Professor	100%	ABIO 301 Molecular Cell Biology ABIO 504 Cell Biology I	Ph.D. Baylor College of Medicine	Cell and Molecular Biology	
Greg Lnenicka Professor Undergraduate Program Director	100%	TBIO 260 Neural Basis of Behavior, ABIO 460 Neural Basis of Behavior, ABIO 490 Topics in Neuroscience	Ph.D. University of Virginia	Biology	
Robert Osuna Associate Professor	100%	ABIO 367 Biochemistry Laboratory, ABIO 399/399Z – Supervised Research for Juniors	Ph.D. University of Michigan	Biological Sciences (Cellular and Molecular Biology)	
Cara T. Pager Associate Professor	100%	ABIO 301 Molecular Cell Biology, ABIO 429/529 Molecular Virology	Ph.D. University of Kentucky	Molecular and Cellular Biochemistry	
Prashanth Rangan Associate Professor	100%	ABIO 504 Cell Biology I	Ph.D. Johns Hopkins University	Biophysics	

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	**% of Time Dedicated to This Program**	**Program Courses Which May Be Taught (Number and Title)**	**Highest and Other Applicable Earned Degrees (include College or University)**	**Discipline(s) of Highest and Other Applicable Earned Degrees**	**Additional Qualifications: List related certifications and licenses and professional experience in field.**
Morgan Sammons Assistant Professor	100%	ABIO 524 Advanced Molecular Biology	Ph.D. Vanderbilt University	Biology	
Annalisa Scimemi Associate Professor	100%	ABIO 447/547 Cellular Aspects of Neurophysiology	Ph.D. International School for Advanced Studies	Biophysics	
Hua Shi Associate Professor	100%	ABIO 523 Biochemistry and Biomolecular Structure	Ph.D. Cornell University	Molecular and Cell Biology	
Priyantha Sugathapala Lecturer	100%	TCHM 130 Advanced General Chemistry I, TCHM 131 Advanced General Chemistry II	Ph.D. Wayne State University	Organic Chemistry	
Ben Szaro Professor	100%	ABIO 524 Advanced Molecular Biology, ABIO 441/541 Molecular Neurobiology	Ph.D. Johns Hopkins University	Biophysics	
Ryan Thurman Lecturer	100%	ABIO 477 Forensics Science, ABIO 478 Instrumental and Biochemical Analysis ABIO 480 Forensic Chemistry and Toxicology	Ph.D. University of Arkansas	Chemistry and Biochemistry	
Christine Wagner Professor	20%	ABIO 490 Topics in Neuroscience	Ph.D. Michigan State University	Neuroscience/Zoology	
Sho-Ya Wang Professor	100%	ABIO 413 Stem Cell Biology	Ph.D. State University of New York, Stony Brook	Molecular Biology	
Ing-Nang Wang Associate Professor	100%	ABIO 330 Principles of Ecology and Evolution, ABIO 429/529 Molecular Virology	Ph.D. State University of New York, Stony Brook	Biological Sciences	
Part 2. Part-Time Faculty					

(a)	(b)	(c)	(d)	(e)	(f)
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	**% of Time Dedicated to This Program**	**Program Courses Which May Be Taught (Number and Title)**	**Highest and Other Applicable Earned Degrees (include College or University)**	**Discipline(s) of Highest and Other Applicable Earned Degrees**	**Additional Qualifications: List related certifications and licenses and professional experience in field.**
Caroline B. Girard Cartier Lecturer	100%	ABIO 344 Mammalian Anatomy Laboratory	Ph.D. University at Albany, SUNY	Ecology and Evolutionary Biology	
Samantha Hoff Lecturer	100%	ABIO 330 Principles of Ecology and Evolution	MS University at Albany SUNY	Biodiversity, Conservation and Policy	
Part 3. To-Be-Hired Faculty (List as TBH1, TBH2, etc., and provide expected hiring date instead of name.)					