

THOMAS H. GOSNELL SCHOOL OF LIFE SCIENCES UNDERGRADUATE STUDENT HANDBOOK

ACADEMIC YEAR 2019-2020

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1. OVERVIEW OF UNDERGRADUATE PROGRAMS

The Thomas H. Gosnell School of Life Sciences offers four undergraduate degree programs: *Biology*, *Biotechnology and Molecular Bioscience*, *Bioinformatics and Computational Biology*, and *Environmental Science*. Each of these programs leads to a Bachelor of Science degree.

1.1 Biology

RIT's biology program starts with foundation courses in biology, math, chemistry, and the liberal arts and then immerses you in the biological sciences, studying animals, microorganisms, and plants at the levels of molecules, cells, tissues, organisms, populations, species, and the environment. You will acquire a comprehensive set of practical skills, from the proper way to prepare cultures in the lab to the appropriate methods of gathering and analyzing ecological data in the field. Undergraduate research is strongly encouraged and further strengthens your preparation for graduate study or employment.

1.2 Biotechnology and Molecular Bioscience

Biotechnology is an exciting field that harnesses the cellular and molecular processes of living organisms to produce new technologies and products for use in medicine, diagnostics, research, and sustainability. The discipline of biotechnology is broadly applicable to many areas such as health-care, industry, agriculture, environmental science, academia, and ethics. The goals of the program are (1) to increase the availability of undergraduates trained to pursue employment in industry, government and academia and/or graduate work towards earning a graduate or professional degrees and (2) to provide a rigorous and upto-date curriculum that emphasizes hands-on laboratory experience, critical thinking, communication and teamwork.

1.3 Environmental Science

An RIT environmental science major embraces the interdisciplinary scientific, social, and cultural aspects of ecological and environmental issues. Through coursework, integrated projects, technical training, and fieldwork, an ES major is prepared to plan and conduct scientific analyses, work with the tools necessary to solve environmental problems, and clearly communicate their findings to the public, policy makers, and scientific community.

1.4 Bioinformatics and Computational Biology

Bioinformatics and Computational Biology is the application of computational and analytical tools to answer biological questions. The program prepares students to follow their interests in careers across many fields such as bioinformatics, biomedical science, computational biology, biotechnology, applied statistics and computer science. Graduates of our program are highly sought after in both industry and academia. They also have a wide range of skills to leverage, creating great career flexibility.

1.4.1 Bioinformatics with Molecular Genetics Option

This option within the bioinformatics degree is for students who want to get more biotechnology (wetbench) science experience while pursuing a bioinformatics degree.

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2. PROGRAM REQUIREMENTS

2.1 B.S in Biology Requirements

Biology Requirements	Credits	Chemistry Requirements	Credits
BIOL.121 - Introduction to Biology I and Lab	4	CHMG.141 - General and Analytical Chemistry I	3
BIOL.122 - Introduction to Biology II and Lab	4	CHMG.145 - General and Analytical Chemistry I Lab	1
BIOL.201 - Molecular Biology	4	CHMG.142 - General and Analytical Chemistry II	3
BIOL 302 – Cell Biology	3	CHMG.146 - General and Analytical Chemistry II Lab	1
Choose one of the following:		CHMO.231 - Organic Chemistry I	3
BIOL.240 - General Ecology (WI)	4	CHMO.235 - Organic Chemistry I Lab	1
BIOL.265 - Evolutionary Biology (WI)	4	CHMO.232 - Organic Chemistry II	3
Choose one of the following:		CHMO.236 - Organic Chemistry II Lab	1
BIOL.321 - Genetics	3		
BIOL.365 - Introduction to Population Genetics	3		
Choose one of the following:			
BIOL.322 - Developmental Biology	4		
BIOL.313 - Comparative Animal Physiology	4		
Program Electives	32		
Total Credits	58	Total Credits	16
Math and Physics Requirements	Credits	Liberal Arts and Misc. Requirements	Credits
PHYS.111 - College Physics I and Lab	4	LAS Elective	3
PHYS.112 - College Physics II and Lab	4	LAS Perspective 1, 2, 3 & 4	12
MATH.161 - Applied Calculus	4	LAS Foundation: First Year Writing	3
Choose one of the following:		RIT 365: RIT Connections	0
STAT.145 - Introduction to Statistics	3	Wellness Education	0
STAT. 155- Introduction to Biostatistics	3	LAS Immersion 1, 2, 3	9
		Open Electives	6
Total Credits	15	Total Credits	33
		Total Semester Credits Hours	122

2.2 B.S in Biotechnology and Molecular Bioscience

Biology Requirements	Credits	Chemistry Requirements	Credits
BIOL.121 - Introduction to Biology I and Lab	4	CHMG.141 - General and Analytical Chemistry I	3
BIOL.122 - Introduction to Biology II and Lab	4	CHMG.145 - General and Analytical Chemistry I Lab	1
BIOL.202 - Molecular Biology	4	CHMG.142 - General and Analytical Chemistry II	3
BIOL.204 - Introduction to Microbiology	4	CHMG.146 - General and Analytical Chemistry II Lab	1
BIOL. 302 Cell Biology	3	CHMO.231 - Organic Chemistry I	3
BIOL.321 - Genetics	3	CHMO.235 - Organic Chemistry I Lab	1
BIOL.325 - Bioinfo Analysis of Macromolecules	3	CHMO.232 - Organic Chemistry II	3
BIOL. 315 Tissue Culture Lab	1	CHMO.236 - Organic Chemistry II Lab	1
Program Electives	33	CHMB.402 - Biochemistry I	3
Total Credits	60	Total Credits	21
Math Requirements	Credits	Liberal Arts and Misc. Requirements	Credits
MATH.161 - Applied Calculus	4	LAS Perspective 1, 2, 3, 4	12
Choose one of the following		LAS Foundation: First Year Writing	3
STAT.145 - Introduction to Statistics	3	RIT 365: RIT Connections	0
STAT.155 – Introduction to Biostatistics	3	Wellness Education	0
		LAS Immersion 1, 2, 3	9
		LAS Elective	6
		Open Electives	6
		BIOL. 500 Exp Learn. Req in Life Science	0
Total Credits	7	Total Credits	33
		Total Semester Credits Hours	121

2.3 B.S in Environmental Science

Core Requirements	Credits	Chemistry Requirements	Credits
BIOL.121 - Introduction to Biology I and Lab	4	CHMG.141 - General and Analytical Chemistry I	3
BIOL.122 - Introduction to Biology II and Lab	4	CHMG.145 - General and Analytical Chemistry I Lab	1
BIOL.240 - General Ecology	4	CHMG.142 - General and Analytical Chemistry II	3
BIOL.575 - Conservation Biology	3	CHMG.146 - General and Analytical Chemistry II Lab	1
IMGS.431 – Env. Apps of Remote Sensing	3	CHMO.231 - Organic Chemistry I	3
STSO.220 – Environment & Society	3	CHMO.235 - Organic Chemistry I Lab	1
STSO.422 – Great Lakes	3		
Choose one of the following	3	Total Credits	12
STSO.421 - Environmental Policy			
PUBL.210 – Qualitative Methods		Math and Statistics Requirements	Credits
ENVS.111 - Soil Science	4	MATH.161 – Applied Calculus I	4
ENVS.101 - Concepts of Env. Science	3	STAT.145 – Intro to Statistics I	3
ENVS.201 – Env. Science Workshop	3	STAT.146 – Intro to Statistics II	4
ENVS.250 - Apps. Of Geographic Info System	4		
ENVS.301 - Env. Science Fields Skills	4	Total Credits	11
ENVS.550 - Hydrologic Apps of GIS	4		
ENVS.551 - Env. Science Capstone I	3	Liberal Arts and Misc. Requirements	Credits
ENVS.552 - Env. Science Capstone II	3	LAS Elective	3
		LAS Perspective 1, 2, 3, 4	12
Total Credits	55	LAS Foundation: First Year Writing	3
		LAS Immersion 1, 2, 3	9
		Open Elective	6
Environmental Science Concentration	Credits	Wellness Education	0
Concentration Courses	14	RIT 365: RIT Connections	0
Total Credits	14	Total Credits	33
		Total Semester Credits Hours	125

2.4 B.S in Bioinformatics and Computational Biology

Biology Requirements	Credits	Chemistry Requirements	Credits
BIOL.121 - Introduction to Biology I and Lab	4	CHMG.141 - General and Analytical Chemistry I	3
BIOL.122 - Introduction to Biology II and Lab	4	CHMG.145 - General and Analytical Chemistry I Lab	1
BIOL.130 - Introduction to Bioinformatics	3	CHMG.142 - General and Analytical Chemistry II	3
BIOL.202 - Molecular Biology	4	CHMG.146 - General and Analytical Chemistry II Lab	1
BIOL.230 - Bioinformatics Languages	3	CHMO.231 - Organic Chemistry I	3
BIOL.321 - Genetics	3	CHMO.235 - Organic Chemistry I Lab	1
BIOL. 296 Ethical Issues in Biology and Medicine	3	CHMB. 402 Biochemistry	3
BIOL.330 - Bioinformatics	3		
BIOL.340 - Genomics	4		
BIOL.470 – Statistical Analysis for Bioinfo	3		
BIOL.550 – High Throughput Sequencing Analysis	3		
BIOL.594 - Molec. Modeling and Proteomics	3		
BIOL.499 - Cooperative Education	0		
		Total Credits	
Total Credits	40	Total Credits	15
Total Credits Math Requirements	40 Credits	Total Credits Liberal Arts and Misc. Requirements	15 Credits
Math Requirements	Credits	Liberal Arts and Misc. Requirements	Credits
Math Requirements MATH.181 – Project Based Calculus I	Credits 4	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3	Credits
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II	Credits 4 4	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4	Credits 12 12
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math	4 4 3	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing	12 12 3
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math STAT.145 - Introduction to Statistics	4 4 3 3 3	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective	12 12 3 8
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I	4 4 3 3 4	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	12 12 3 8 0
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II	4 4 3 3 4 4	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	12 12 3 8 0
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II CSCI.243 - Mechanics of Programming	4 4 3 4 4 3 3	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	12 12 3 8 0
Math Requirements MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II MATH.190 - Discrete Math STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II CSCI.243 - Mechanics of Programming CSCI.251 - Conc. of Parallel & Dis. Systems	Credits 4 4 3 3 4 4 3 3 4 3 3	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	12 12 3 8 0

2.5 B.S in Bioinformatics with Molecular Genetics Option

Biology Requirements	Credits	Chemistry Requirements	Credits
BIOL.121 - Introduction to Biology I and Lab	4	CHMG.141 - General and Analytical Chemistry I	3
BIOL.122 - Introduction to Biology II and Lab	4	CHMG.145 - General and Analytical Chemistry I Lab	1
BIOL.130 - Introduction to Bioinformatics	3	CHMG.142 - General and Analytical Chemistry II	3
BIOL.202 - Molecular Biology	4	CHMG.146 - General and Analytical Chemistry II Lab	1
BIOL.230 - Bioinformatics Languages	3	CHMO.231 - Organic Chemistry I	3
BIOL.321 - Genetics	3	CHMO.235 - Organic Chemistry I Lab	1
BIOL. 296 Ethical Issues in Biology and Medicine	3	CHMO.232 - Organic Chemistry II	3
BIOL.330 - Bioinformatics	3	CHMO.236 - Organic Chemistry II Lab	1
BIOL.340 - Genomics	4	CHMB. 402 Biochemistry	3
BIOL.470 – Statistical Analysis for Bioinfo	3		
BIOL.550 – High Throughput Sequencing Analysis	3		
BIOL.499 - Cooperative Education	0		
Biotech Electives	11		
Total Credits	48	Total Credits	19
Math Requirements	Credits	T 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Credits
	Cicuits	Liberal Arts and Misc. Requirements	Credits
MATH.181 – Project Based Calculus I	4	Liberal Arts and Misc. Requirements LAS Immersions 1, 2, 3	9
MATH.181 – Project Based Calculus I MATH 182- Project Based Calculus II		-	
	4	LAS Immersions 1, 2, 3	9
MATH 182- Project Based Calculus II	4	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4	9
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics	4 4 3	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing	9 12 3
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I	4 4 3 4	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective	9 12 3
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II	4 4 3 4 4	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	9 12 3 8 0
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II CSCI.243 - Mechanics of Programming	4 4 3 4 4 3	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	9 12 3 8
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II CSCI.243 - Mechanics of Programming	4 4 3 4 4 3	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	9 12 3 8
MATH 182- Project Based Calculus II STAT.145 - Introduction to Statistics CSCI.141 - Computer Science I CSCI.142 - Computer Science II CSCI.243 - Mechanics of Programming	4 4 3 4 4 3	LAS Immersions 1, 2, 3 LAS Perspective 1, 2, 3, 4 LAS Foundation: First Year Writing Open Elective RIT 365: RIT Connections	9 12 3 8

3. MINORS

3.1 Environmental Science

Karl Korfmacher, Minor Adviser (585) 475-5554, kfkscl@rit.edu

The environmental science minor introduces students to the complexities of environmental issues and concepts, and provides them with opportunities to further investigate many of these issues through advanced course work. Central to this minor are the development of field, analytical, and problem solving skills and an understanding of the multiple perspectives often embedded in environmental issues. Students interested in becoming "citizen scientists," or those pursuing employment or an advanced degree with an environmental focus, will find this minor beneficial.

	Credits
Built Environment/Climate Change Track	
ENVS. 101 Concepts of Environmental Science	3
ENVS. 201 Environmental Workshop	3
Choose two of the following	
ENVS. 301 Environmental Science Field Skills	4
ENVS. 330 Urban Ecology	3
ENVS. 531 Climate Change: Science, Tech & Policy	3
Ecology Track	
BIOL. 240 General Ecology	4
Choose two of the following	
BIOL. 371 Freshwater Ecology	3
BIOL. 385 Seneca Park Zoo Internship	4
BIOL. 573 Marine Biology	3
BIOL. 575 Conservation Biology	4
ENVS. 311 Wetlands	4
ENVS. 330 Urban Ecology	3
ENVS. 531 Climate Change: Science Tech & Policy	3

	Credits
Environmental Microbiology Track	
BIOL. 204 Introduction to Microbiology	4
Choose two of the following	
BIOL. 306 Food Microbiology	4
BIOL. 307 Microbiology of Wastewater	3
BIOL. 310 Bioenergy: Microbial Production	3
BIOL. 370 Environmental Microbiology	3
GIS/Remote Sensing Track	
ENVS. 250 Applications of Geographical Information Systems	4
Choose two of the following	
ENVS. 550 Hydrologic Application of Geographic Info Systems	4
IMGS. 431 Environmental Applications of Remote Sensing	3
IMGS. 532 Advanced Environmental Applications of Remote Sensing	3

Notes about this minor:

- This minor is closed to students majoring in environmental science.
- Posting of the minor on the student's academic transcript requires a minimum GPA of 2.0 in the minor.

3.2 Biology: Cellular and Molecular

Rosanne Klingler, Minor Adviser (585) 475-4765, rkssbi@rit.edu

The cellular and molecular biology minor provides students with opportunities to experience and explore topics related to both the cellular and molecular aspects of modern biology to broaden and enhance their educational experience. This minor is closed to students majoring in biology, biochemistry, bioinformatics, biomedical sciences, and biotechnology and molecular bioscience.

	Credits
Choose one of the following sequences	
BIOL. 101 General Biology	3
BIOL. 103 General Biology I Lab	1
BIOL. 102 General Biology II	3
BIOL. 104 General Biology II Lab	1
or	
BIOL. 121 Introduction to Biology I	4
BIOL. 122 Introduction to Biology II	4
Required Course	
BIOL. 201 Cellular and molecular Biology	4
Electives	
Elective choices should total a minimum of 11 credit hours	
BIOL. 204 Introduction to Microbiology	4
BIOL. 218 Biology of Plants	3
BIOL. 265 Evolutional Biology	4
BIOL. 305 Plants, Medicine and Technology	4
BIOL. 306 Food Microbiology	4
BIOL. 307 Microbiology of Wastewater	3
BIOL. 308 Biology of Cancers	3
BIOL. 310 Bioenergy: Microbial Production	3
BIOL. 314 Tissue Culture	4
BIOL. 321 Genetics	3

	Credits
BIOL. 322 Developmental Biology	4
BIOL. 325 Bioinformatic Analysis of Macromolecules	4
BIOL. 340 Genomics	4
BIOL. 341 Synthetic Biology	3
BIOL. 375 Advanced Immunology	4
BIOL. 380 Bioremediation	3
BIOL. 401 Biological Separations: Principles and Practices	4
BIOL. 403 Fundamentals of Plant Biochemistry and Pathology	4
BIOL. 412 Human Genetics	3
BIOL. 415 Virology	3
BIOL. 416 Plant Biotechnology	4
BIOL. 418 Plant Molecular Biology	4
BIOL. 420 Bacterial Host Interactions: Microbiomes of the World	3
BIOL. 427 Microbial and Viral Genetics	4
BIOL. 450 Genetic Engineering	5

- This minor is closed to students majoring in biology, biochemistry, bioinformatics and computational biology, biomedical sciences, and biotechnology and molecular bioscience.
- Posting of the minor on the student's academic transcript requires a minimum GPA of 2.0 in the minor.
- Notations may appear in the curriculum chart below outlining pre-requisites, co-requisites, and other curriculum

requirements (see footnotes).

3.3 Biology: Ecology and Evolution

Rosanne Klingler, Minor Adviser (585) 475-4765, rkssbi@rit.edu

The ecology and evolutionary biology minor provides students with the opportunity to experience both the ecological and evolutionary underpinnings of modern biology. The minor explores these areas of biology through laboratory and field experiences. The minor is closed to students majoring in biology or enrolled in the biology concentration of the environmental science major.

	Credits
Choose one of the following sequences	
BIOL. 101 General Biology	3
BIOL. 103 General Biology I Lab	1
BIOL. 102 General Biology II	3
BIOL. 104 General Biology II Lab	1
or	
BIOL. 121 Introduction to Biology I	4
BIOL. 122 Introduction to Biology II	4
Required Course	
Choose at least one of the following	
BIOL. 240 General Ecology	4
BIOL. 265 Evolutionary Biology	4
Electives	
Elective Choices should total a minimum of 11 credits hours	
BIOL. 205 Animal Behavior	4
BIOL. 207 Galapagos: Ecology and Evolution	3
BIOL. 211 Invertebrate Zoology	4
BIOL. 212 Vertebrate Zoology	3
BIOL. 218 Biology of Plants	3
BIOL. 290 Vertebrate Evolution	3
BIOL. 293 Evolution and Creationism	3
BIOL. 309 Comparative Vertebrate Anatomy	4
BIOL 313 Comparative Animal Physiology	4
BIOL. 343 Tropical Ecology	3

	Credits
BIOL. 365 Introduction to Population Genetics	
BIOL. 371 Freshwater Ecology	
BIOL. 385 Seneca Park Zoo Internship	
BIOL. 455 Biogeography	
BIOL. 573 Marine Biology	
BIOL. 575 Conservation Biology	

3.4 Bioinformatics and Analysis Minor

Feng Cui, Minor Adviser

(585) 475-4115, <u>fxcsbi@rit.edu</u>

The bioinformatics analysis minor immerses students in the core challenges and strengths of the field of bioinformatics, as well as the ethical issues involved. Students gain hands-on experience implementing some of the core algorithms utilized by professionals in the field.

	Credits
Prerequisites	
BIOL. 102 General Biology	3
or	
BIOL. 122 Introductory Biology II	4
and	
BIOL. 201 Cellular and Molecular Biology	4
and	
CSCI. 141 Computer Science I	4
and	
CSCI. 142 Computer Science II	4
Required Courses	
BIOL. 130 Introduction to Bioinformatics	3
BIOL. 296 Ethical Issues in Biology and Medicine	3
BIOL. 330 Bioinformatics	3
Electives	
Choose two of the following	
BIOL. 230 Bioinformatics Languages	3
BIOL. 470 Statistical Analysis for Bioinformatics	3
BIO. 530 Bioinformatics Algorithms	3
BIOL. 550 High Throughput Sequencing Analysis	3
BIOL. 594 Molecular Modeling and Proteomics	3
BIOL. 635 Bioinformatics Seminar	3

4. ADVANCED PLACEMENT AND TRANSFER CREDIT

4.1 Advanced Placement

Please visit the webpage of the Office of the Registrar for the most up-to-date information about Advanced Placement, CLEP and International Baccalaureate credit.

https://www.rit.edu/academicaffairs/registrar/

Please request that all official AP Scores be sent directly from the issuing body to:

RIT Office of the Registrar 60 Lomb Memorial Drive Rochester, NY 14623-5603

4.2 Transfer Credit

RIT awards transfer credit for courses completed at other regionally accredited colleges and universities only. Transfer credit at the undergraduate level will only be granted for course work completed with a grade of "C" or above. There is no limit on the number of credit hours that can be awarded. Regardless of the total amount of transfer credit awarded, a minimum of 30 semester credit hours needs to be completed at RIT in the college granting the degree for Baccalaureate degree candidates. In addition, 20 of the final 30 credit hours must be completed with RIT coursework.

Official transcripts should be sent directly from the issuing body to the following address:

RIT Office of the Registrar 60 Lomb Memorial Drive Rochester, NY 14623-5603

Frequently Asked Questions

1. Who makes the admission decision?

Admission decisions on undergraduate applicants are made by the Admissions staff in consultation with the college concerned.

2. Who evaluates my transfer credit?

Transfer credit is evaluated by the academic school or department in question and the College of Liberal Arts. Official transcripts from each college or university previously attended must be sent to the RIT Office of Undergraduate Admissions.

3. My previous university gave Pass/Fail and Credit/No Credit grades. Will RIT accept courses with these grades?

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If the other university's academic policy specifies that Pass or Credit is equivalent to the letter grade of C or above, we will review the course for possible transfer credit.

4. Will the GPA from my previous university appear on my RIT transcript?

No. We do not record GPA information from other universities.

5. At my previous university, I received credit for a course through "Credit by Examination". Can I get transfer credit for this course at RIT?

It depends. Your performance on standardized exams, such as AP, CLEP, etc. will be re-evaluated by RIT. Often these exams will generate a similar credit award to what your previous university awarded. Courses that appear as Credit by Exam on your transcript that are for non-standardized exams (e.g., exams created by your university) are not eligible for credit.

The reason for this is that every school has different academic standards. We have no way of knowing what material your former school used to award credit.

4.3 Math Placement Exam

The Math Placement Exam (MPE) is required of all incoming students whose degree program requires a calculus course that includes our BS Biology, BS Biotechnology, BS Bioinformatics, and BS Environmental Science programs. The exam is administered by the School of Mathematical Sciences and is offered every semester during the enrollment process and every June for first-year students. The MPE will cover the following topics: *Algebra*, *Functions, Trigonometry, Geometry*.

The School of Mathematical Sciences will provide a recommendation to the students' home departments for appropriate placement based upon the MPE score.

Business and Life Sciences Sequences:

Please visit www.rit.edu/science/mpe for more information.

MPE Score	Course Placement	Course Title	Note
No minimum score	MATH-101 or MATH-111	College Algebra or Precalculus	Students may not take and receive credit for both MATH-111 and MATH-101
At least 35%	MATH-131	Discrete Mathematics	
At least 35%	STAT-145	Introduction to Statistics I	
At least 45%	MATH-161	Applied Calculus	
At least 50%	MATH-171	Calculus A	
At least 60%	MATH-181A	Calculus I	
At least 70%	MATH-181	Project-Based Calculus I	

4.4 CLEP (College Level Examination Program)

CLEP is a nationwide system of credit by examination offered by The College Board. Any person entering college, presently attending college or out of college may take CLEP examinations and seek credit by submitting the test results to RIT for evaluation. Credit recommendations for CLEP vary depending on the subject and examination results. Please consult with an advisor in the Office of Student Services for further information and to determine which examination will fulfill Liberal Arts course requirements.

5. PROGRAM ENHANCEMENT OPPORTUNITIES

5.1 Co-op

Cooperative Education, or co-op, gives you the opportunity to gain meaningful work experience before you graduate. Cooperative education at RIT is full-time and often paid employment directly related to your field of study. Co-op gives you the opportunity to:

- Apply much of the theory you are learning in your course work
- Experience a typical work day and focus your career choice
- Earn a reasonable salary which will help you finance your education
- Take a breather away from your "grind" as a student
- Develop additional technical skills and enhance vital personal skills such as judgment, written and oral communication, teamwork
- Make contacts (network) that may be helpful when you seek full-time employment
- Be a more attractive candidate for full-time employment after graduation and probably obtain a higher starting salary than students without co-op experience

Please visit www.rit.edu/emcs/oce/ for more information.

5.1.1 Bioinformatics B.S Co-op Requirement

The B.S in Bioinformatics program requires the completion of one cooperative education experience during which students participate in applied bioinformatics, using current technologies to gain a practical perspective. More than 65 organizations in industry, government, and academia employ our students in full-time paid positions. Co-op positions may be completed during the summer and/or the academic year. No tuition is charged for co-op participation. If a student elects to pursue co-op during the academic year, they may need to extend the date of graduation beyond the traditional four years.

5.2 Research Opportunities

Our undergraduates that participate in research throughout their course of study are often awarded with authorship on scientific publications alongside their faculty members. Many of our Life Science BS programs allow up to 6 hours of elective credit towards your degree for undergraduate research performed in RIT labs with Life Sciences faculty. These experiences often result in presentations at scientific meetings and/or publication of results in peer reviewed scientific journals. Here are some additional research, internship and co-op listings related to the life sciences: (https://www.rit.edu/science/research)

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5.2.1 Undergraduate Research for Credit

In the Gosnell School of Life Sciences, students are both encouraged and permitted to participate in undergraduate research for course credit. A student and a faculty member will work together to develop a "Research Contract" that will detail the objectives of the research, a brief research proposal, and methods for evaluating the student's performance at the conclusion of the term. The form can be found under your myRIT portal (on the College of Science webpage) under Resources for College of Science Forms.

The faculty member and student have the option of enrolling in one, two, three or four credits of research credit per term. Each credit of research is assumed as 3-4 hours per week in the laboratory. Upper division undergraduate research credit will count as program elective credit.

5.2.2 Laboratory Safety Training

Laboratory Safety Training is required on an annual basis for all faculty, staff, and students participating in undergraduate research. Online training is available and the following link:

http://www.rit.edu/fa/grms/ehs/content/labstudio-safety

5.2.3 Key/Swipe Card Access

All students requiring key or swipe card access to specific facilities under the jurisdiction of the Thomas H. Gosnell School of Life Sciences must compete a 'Room Access Authorization Form' and return the completed document to Jennie Liedkie, located in the 1st floor stockroom of the Gosnell Building. RIT's Laboratory Safety Training must be completed for the current academic year before this form is submitted. Please note: upon completion of Laboratory Safety Training you do not need to print a certificate of completion. Your name will be electronically updated to a list accessible to Jennie Liedkie. The 'Room Access Authorization Form' can be found on Forms and Documents under the GSOLS website, https://www.rit.edu/myrit/resources-college-science-students#forms

5.3 Independent Study

Thomas H. Gosnell School of Life Sciences students also have the opportunity to participate in Independent Study under a faculty member for course credit. The form can be found under your MyRIT portal under the College of Science Forms tab.

5.4 Resources for Co-ops, Jobs, Internships

RIT has a number of resources on campus for assisting students with locating and securing co-ops, jobs and internships.

- RIT Office of Career Services and Cooperative Education (http://www.rit.edu/emcs/oce/)
- RIT Student Employment (Handshake) (https://www.rit.edu/emcs/oce/employer/handshake)
- RIT Fall and Spring Career Fairs (https://www.rit.edu/emcs/oce/student/career-fairs-all-majors)
- GSOLS Co-op/Internships and Summer Research Opportunities in the Life Sciences (http://people.rit.edu/gtfsbi/Symp/summer.htm)

5.5 Thomas H. Gosnell School of Life Sciences Clubs

Biotechnology Club

Faculty Mentor: Dr. Andre Hudson President: Spencer Richman

Pre-veterinary Club

Faculty member: Larry Buckley

President: Erica Delles Vice President: Emma More

Contact: Larry Buckley - ljbsbi@rit.edu

5.6 Confocal Microscopy Lab

The Confocal Microscopy Lab provides RIT faculty and students with a multidisciplinary imaging research and training facility centered around confocal microscopy. Many courses in the Thomas H. Gosnell School of Life Sciences utilize the Confocal Microscope.

For more information, please contact Dr. Hyla Sweet, Lab Director, or visit: https://www.rit.edu/science/confocal.

6. ADVISING

6.1 Academic Advising

Each student is assigned an academic adviser who provides counsel on course selection, advice about careers, and information on RIT services. In addition, it is common for a science major to have several mentors among the faculty who help with academic, career, and personal questions. Life Science majors also have professional staff advisors to help with program specific questions related to scheduling, degree audits, and graduation requirements. The two professional staff advisors for the undergraduate Life Science programs are:

Biology & Biotechnology

Rosanne Klingler 1290 Thomas Gosnell Hall 585-475-4765 rkssbi@rit.edu

Bioinformatics and Computational Biology

Lindsay D'Alleva 2340 Thomas Gosnell Hall 585-475-5147 lkdiao@rit.edu

Environmental Science

Larissa Barresi 1278 Thomas Gosnell Hall 585-475-7474 ljbsse@rit.edu

6.1.1 Scheduling a Meeting with your Academic Advisor



Student Getting Started Guide

Welcome to Starfish ® @ RIT

Starfish provides you with a central location to connect to the people that can help you finish what you start – all accessible right from your Starfish **Home** page.

Access your Starfish **Home** page by logging in to **SIS** or **myCourses** and clicking on the Starfish icon.



Your **Home** page includes access to a customizable profile and personalized channels that make it easy to schedule the dedicated time you need with your academic advisor.

Here are three great ways to get started:

1. Set up your profile

Make it easier for your instructors and advisors to get to stay in contact by updating your contact information.





2. Stay on track

Use your personalized **Dashboard** to stay on top of any academic alerts from your instructors as well as any upcoming appointments with your academic advisor.

3. Connect to people that can help you

Use your personalized **My Success Network** channel to schedule an appointment with your **primary academic advisor**. Simply click on the "Schedule Appointment" link under their name to access their available appointment times.



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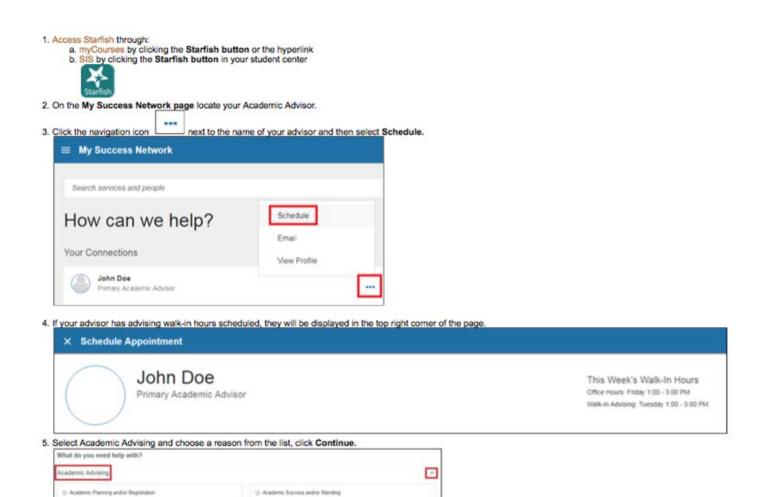
6.2 Career/Professional Advising

Each student in the Thomas H. Gosnell School of Life Sciences is assigned a Career/Professional Advisor in addition to their academic advisor.

Your Career/Professional Advisor is typically a professor within your school's faculty. You should seek the advice of your Career/Professional Advisor on manners pertaining to career aspirations and graduate/professional education. Your academic advisor is available for course scheduling questions, pending graduation requirements, transfer credit articulations, etc.

Each student can view both their assigned Advisors on SIS. They are listed under the main "Student Center Page", in the bottom right corner under "advisor".

Please refer to the example screenshot included below.

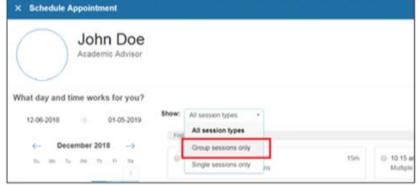


D. Considering Leaving RIT

Course Withdrawal

(i) Co-Op-Internation

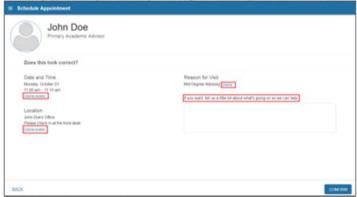
6. There is a drop-down filter that allows you to select group advising sessions (if available) or individual advising sessions.



7. Adjust the date range as needed to find days and times that work for your schedule, and then select a time from the list, click Continue.



8. On next page you can verify the details of your meeting and/or make adjustments to the duration, location, and reason (as needed) and add a brief description for why you want to meet.



- 9. Click Confirm to finalize your meeting.
- 10. You will get an email with the appointment details and the appointment will be listed on the Upcoming tab.
- 11. If you get an error that says "Sorry, the appointment is no longer available. Please try again." we recommend that you try using Starfish in a different browser. Chrome is the preferred browser for Starfish.

7. SCHOLARSHIPS & HONORS

7.1 Baldwin Memorial Scholarship

The David M. Baldwin Memorial Scholarships are supported financially from an endowment to RIT established by Professor Baldwin's estate following his untimely death in 1975. Professor Baldwin graduated from Reed College, held a Master of Science degree in microbiology, and taught biology from 1945 to 1974. Teaching was his love and drive, and he spent many extra hours assisting students who were having difficulties in his courses. His dedication to teaching earned him one of the first Outstanding Teaching Awards ever awarded at RIT. His desire to help students obtain a sound education at RIT is perpetuated by these scholarships.

It is anticipated that the scholarships will be at least \$5000 for each awardee and the awards will be applied to the students' RIT accounts. Presentation of the awards will occur at a dinner during the spring semester.

The following are required for eligibility for the Baldwin Memorial Scholarship:

- 3rd vear Status
- A Minimum Cumulative Grade point Average of 3.40.
- A written statement no more than two pages in length describing your key scholarship and <u>service</u>
 contributions, how these experiences have shaped your education at RIT, and how they relate to your future
 plans.

The awards committee will examine each student's application for an emphasis on a service component.

In the Spring Semester of each year, an email will be sent to all Thomas H. Gosnell School of Life Science students to solicit applications. This email will contain specific details regarding deadlines and to whom electronic applications should be sent.

7.2 John Wiley Jones Scholarship

John Wiley Jones created a scholarship fund to inspire and encourage students to pursue careers in science. The John Wiley Jones Award for Outstanding Students in Science is given to students in each of the six academic departments in the College of Science in recognition of their academic achievements and their contributions to the entire campus as good citizens.

7.3 Undergraduate Student Delegate for Commencement

Each year before commencement, the College of Science Honors and Awards Committee will select both an undergraduate and graduate student to serve as the college's elected delegates for the commencement ceremonies. This student will be selected based on academic achievement and service to the university and the community. The selected undergraduate will represent their class with a brief speech during the College of Science commencement ceremony.

8. GRADUATION

8.1 Requirements for Graduation

BACCALAUREATE DEGREES

A. Successful completion of all required courses of the university and college, including cooperative employment where applicable. All grades must be recorded and any outstanding Incomplete ("I") grades must be resolved. B. A cumulative grade point average of 2.00 (a "C" average).

- C. A minimum of 30 credit hours shall be successfully completed in residence at the university in the college granting the degree (inclusive of service courses). If the student has successfully completed 30 credit hours in residence, a petition may be submitted to the dean to study 10 credit hours in absentia in the final year of the degree; at a minimum, 20 of the final 30 credit hours are to be completed in residence.
- D. Minimum number of credit hours as required by that college, but in no case shall this be less than 120 credit hours for the baccalaureate degree.
- E. Wellness requirements as published in the university's official bulletin.
- F. Demonstrated competence in writing skills as established in the university's writing policies (see <u>D16.0</u>).
- G. Full payment or satisfactory adjustment of all financial obligations.
- H. Candidates for the university's degrees are expected to attend commencement ceremonies.

Graduation requirements for an undergraduate academic award are based on the regulations and requirements printed in the RIT Bulletin in effect at the time of a student's matriculation into his or her program. A bulletin published after the matriculation date may be chosen by the student when it is to his/her advantage. The time limitation on this provision is that no student may graduate under the requirements of a bulletin published more than seven (7) calendar years prior to the date of graduation.

Courses are subject to change without notice and the university is not obligated to offer discontinued courses. Individual curriculum requirements may be adjusted upon the student's request, and with the approval of the head of the student's primary academic department.

8.2 Early Graduation Policies

Students who are registered for all courses required to be certified for graduation in the spring or summer term of the current academic year and students who have been certified at the end of the previous fall term will participate in graduation each spring. A student may be allowed to participate in the spring graduation before the upcoming fall term in which they anticipate degree completion. A student may request an exception by submitting the COS Petition to Participate in Commencement form. Permission will be granted at the discretion of the head of the academic unit and the Dean's Office for a student who will complete all degree requirements with 18 or fewer credit hours to be completed by the end of the following fall term. Undergraduate students may only participate in graduation and be listed in the commencement booklet one time

9. ACADEMIC POLICIES

9.1 Institute Writing Requirement

The Writing Across the Curriculum Program requirement entails three writing intensive (WI) creditbearing courses.

Following university policy, all students are required to complete three writing intensive (WI) courses before they graduate:

- one First Year Writing course, to be taken in the first year;
- one Programmatic WI course, year taken as required by the particular degree program; and
- a third WI course, preferably within General Education but may be a second program WI course, to be taken in the second or third year is recommended.

First Year Writing is a General Education Foundations course that plays an essential role in students' academic transition to the university. In FYW, students learn about the social and intellectual aspects of university writing, and develop critical literacy practices required for academic success. There are currently three FYW courses that fulfill this requirement:

- FYW: Writing Seminar (UWRT-150)
- FYW: The Future of Writing (ENGL-150)
- FYW: Ethics in Computing (ISTE-110)

General Education Writing Intensive (WI) courses reinforce the knowledge and practices introduced in FYW. These courses are located throughout the perspective, immersion, and elective course categories on the General Education curriculum and use writing to engage students in course content.

Program Writing Intensive courses (identified on the typical course sequence charts with the designation "WI") are located in disciplinary contexts and apprentice students in specific forms of writing. These courses reinforce the knowledge and practices introduced in FYW, and students gain mastery of written forms specific to the student's major area of study.

9.1.1 GSoLS Writing Intensive Courses (as of Fall 2015)

- BIOL.240, General Ecology
- BIOL.265, Evolutionary Biology
- BIOL.308, Biology of Cancers
- BIOL.345, Molecular Ecology
- BIOL.599, Research Based Writing

9.2 Experiential Learning Requirement

All students in the College of Science and the Thomas H. Gosnell School of Life Sciences are required to complete Experiential Learning (EL) that is minimally equivalent to one academic year, exclusive of first year biology, before they graduate. The experiential learning requirement can be fulfilled through a variety of methods including Co-op, undergraduate research, summer research experiences, designated EL courses, etc.

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First Year Experiential Learning plays an essential role in students' academic transition to the university. This is reflected in the first year Biology sequences (BIOL 101/102 or BIOL 121/122). In these introductory courses, students learn the fundamentals of biology and the application of biology to real world and practical applications. This transition year into the college environment is critical to the success of GSOLS students and is deemed of utmost importance by the GSOLS faculty.

Overall, the process of Experiential Learning (EL) in GSOLS beyond the first year sequence aims to more formally integrate concrete experiences, reflective observations, abstract conceptualization, and active experimentation into the undergraduate experience at RIT.

By engaging in Experiential Learning, individuals will:

- deepen their knowledge through repeated application and reflection of knowledge,
- develop skills through practice and reflection,
- extend their learning as they bring their learning back to the classroom, and
- apply their extended knowledge and experiences to their vocations and every day lives following graduation.

For students in **Environmental Science**, the capstone experience (ENVS-551 and 552) fulfils the experiential learning requirement.

For students in **Bioinformatics** and **Bioinformatics with Molecular Genetics Option**, the co-op requirement fulfils the experiential learning requirement.

For students in **Biology** and **Biotechnology & Molecular Bioscience**, students must choose from a list of available experiences. The following are examples of EL fulfilment opportunities. This list is not exhaustive, and the GSOLS Experiential Learning Support (GSOLS ELS) group will have executive decisions regarding the inclusion of any specific opportunities in a graduate application.

- One or more Programmatic EL course, as has been approved by the College of Science Curriculum Committee and GSOLS ELS
- One or more upper level undergraduate research experience within GSOLS (e.g. BIOL 459) that must include dissemination of the students' project, within or external to RIT;
- One or more approved summer research experience, within or external to RIT (e.g. Research Experience for Undergraduates, etc.);
- One or more approved co-op / research / internship experience, within or external to RIT;
- One or more approved clinical education experiences (e.g. intensive internship / rotation under the direct supervision of a credentialed practitioner;
- One or more approved field research experiences within or external to RIT; or
- One or more approved Study Abroad experiences.

Experiential Learning (EL) opportunities reinforce the knowledge and practices introduced in the first biology sequence courses. A standing committee composed of GSOLS Faculty (GSOLS ELS) will review all student submissions for experiential learning requirements to confirm that the experiences fulfil the requirements for graduation. Once these requirements have been met, students will be allowed to enroll in BIOL-500 to complete their degree requirement.

9.3 Academic Dishonesty

A breach of student academic integrity falls into three basic areas: cheating, duplicate submission and plagiarism.

- A. Cheating: Cheating is any form of fraudulent or deceptive academic act, including falsification of data, possessing, providing, or using unapproved materials, sources, or tools for a project, exam, or body of work submitted for faculty evaluation.
- B. Duplicate Submission: Duplicate submission is the submitting of the same or similar work for credit in more than one course without prior approval of the instructors for those same courses.
- C. Plagiarism: Plagiarism is the representation of others' ideas as one's own without giving proper attribution to the original author or authors. Plagiarism occurs when a student copies direct phrases from a text (e.g. books,

journals, and internet) and does not provide quotation marks or paraphrases or summarizes those ideas without giving credit to the author or authors. In all cases, if such information is not properly and accurately documented with appropriate credit given, then the student has committed plagiarism.

For more information on the procedures for handling alleged breaches of academic integrity, please see RIT Policy D08.0, Student Academic Integrity Policy.

9.4 Suspension & Probation

An undergraduate student must maintain a cumulative GPA of 2.00 or above at RIT in order to remain in good academic standing. To help students maintain satisfactory academic performance, RIT has set academic standards that serve to identify, warn, and provide timely intervention to a student who is experiencing academic difficulty.

All probation and academic suspension actions are taken at the end of the fall, spring and summer terms. GSOLS will follow the RIT and COS Policies on Academic Actions including probations and suspensions (D05.1) with the additional stipulation that conditions in probation and suspension contracts remain binding at the discretion of the sponsoring program including potential program dismissal for non-compliance. Sample letters for probation and suspension are provided after section 9.4.

Probation refers to the academic action taken when a student is not in good academic standing. A student placed on probation is expected to sufficiently raise his/her GPA in the succeeding term so that the probationary status can be removed. In some circumstances, a student will also be required to satisfy specific conditions required by the home department in the form of an academic contract in order to be removed from probation.

Suspension refers to the academic action taken when a student is not permitted to enroll in courses at the university for a period of one calendar year.

- 1. Any degree-seeking undergraduate student whose term or cumulative grade point average (see <u>D5.0-Grades</u>, section G) falls below a 2.00 (C average) will be placed on probation.
- 2. Any student who is on probation according to A.1. above and who is not removed from probation in the two succeeding terms (including summer session) in which credit is attempted will be suspended from RIT for a period of one calendar year.
- 3. Any student who has been placed on probation after having been removed from probation and whose cumulative grade point average is below 2.00 will be suspended.
- 4. Any student who has been placed on probation after having been removed from probation and whose cumulative grade point average is 2.00 or above will be granted one term to be removed from probation before suspension from RIT.
- 5. Any student whose term grade point average falls below 1.00 will be suspended from RIT for a period of one calendar year.
- 6. Students who have been readmitted to their original program after having been suspended and then qualify for probation will be suspended from RIT.
- 7. A suspended student cannot enroll in any credit or non-credit course at the university while on suspension.
- 8. A suspended student may appeal a suspension decision. Individual colleges and/or programs may set limitations on the number of appeals a student can submit.
- 9. A suspension may be waived upon written appeal to the student's home program. Final suspension waiver requires dean (or designee) approval. For programs housed outside the college structure, the approval of the director of the academic unit in which the enrollment is requested is required.
- 10. A suspended student may be required to satisfy specific academic conditions imposed by the home department in order to be considered for readmission to his/her program.
- 11. A suspended student may be admitted to another program if it is approved by the dean (or designee) of the college in which enrollment is requested. For programs housed outside the college structure, the approval of the director of the academic program in which the enrollment is requested is required.

12. Students must apply through undergraduate admissions for re-admission at the end of their suspension. Such re-admission must be approved by the dean (or his/her designee) of the college for which they are requesting enrollment (this may be the original college or another). For programs housed outside the college structure, the re-admission must be approved by the director (or designee) of the academic unit for which they are requesting enrollment.

Dear [student name],

Your academic performance during the Spring Semester (2185) resulted in you being placed on academic probation. Failure to improve your grade point average may lead to your academic suspension from RIT. You must earn a C average (GPA 2.0) or better during this and all subsequent academic terms to return to good academic standing and make satisfactory progress toward completion of your degree requirements. Shown below are some recommendations you should follow to maximize your chances of academic success.

- 1) Attend and actively participate in all your classes and complete all class assignments, including homework, quizzes, tests, final exams, projects, and lab reports by the assigned date.
- 2) Meet with your instructor during office hours as soon as you sense difficulty with any of your classes.
- 3) Take advantage of tutoring services that are available throughout the Institute that include, but are not limited to, the services provided by the Academic Support Center (ASC). A description of the services offered through the ASC is available starting at http://www.rit.edu/~w-asc/vision-mission.php. Among these services are the Math and Physics tutoring that is available throughout the week in the Bates Study Center (GOS-1200) and Sol Heumann Hall (SHH-1016).
- 4) You must meet with Dr. Kate Wright, Associate Head of Life Sciences, between weeks five and seven of the fall semester to review your academic progress and identify academic support strategies, if necessary. To set up an appointment with Dr. Wright, contact Lori Hyde via email at lkhsse@rit.edu or phone, 475-7577.

Your signature below is evidence that you understand the significance of being placed on academic probation and the importance of the recommendations outlined above. Please sign and return the original; the copy is for your records.

Let me know if you have questions or concerns.

Sincerely,

Dr. Andre' Hudson Head, School of Life Sciences

Dear David:

I regret to inform you that as a result of your performance Spring Semester 2185, per RIT Policy 5.0, you are suspended from the Rochester Institute of Technology for a period of one academic year. During this suspension you may not enroll in any academic courses at the Institute.

According to present policy you may appeal a suspension by submitting a written appeal to your department head no later than the end of the first day of classes of Fall Semester 2181. If you appeal and the appeal is denied you will need to reapply through the RIT Admissions Office for readmission should you decide to return to RIT following the period of suspension. According to RIT Policy 5.0 the dean or his/her designee of the college for which you are requesting reenrollment must approve re-admission to RIT. This may be the original college imposing this suspension or another college at RIT.

I hope that you will recognize the fact that this suspension, however unpleasant, is intended to serve a very definite purpose—to give you time to rethink your performance, to reconsider your goals and objectives, and to seek advice and assistance as you reevaluate your earlier decisions and commitments.

In this connection I wish to assure you that many of us here at RIT are willing to assist you in any way possible. Dr. André Hudson, Head for Thomas H. Gosnell School of Life Sciences, the Academic Support Center (585) 475-6682 and the Counseling Center (585) 475-2261 are available for advice and counsel.

If you have any questions regarding the above please feel free to contact Dr. Hudson via his assistant, Lori Hyde at (585) 475-7577 or by email at lkhsse@rit.edu.

Regards,

Sophia A. Maggelakis, Ph.D. Dean of the College of Science Professor of Mathematics

9.5 General Education Requirements

Students in all bachelor of science degree programs are required to complete a minimum of 60 credit hours in General Education. The general education framework intentionally moves through three educational phases designed to give students a strong foundation, an introduction to fundamentals of liberal arts and sciences disciplines, and the opportunity for deeper study and integrative learning through immersion in a cluster of related courses.

An overview of RIT's general education program can be found here: http://www.rit.edu/academicaffairs/generaleducation/

The general education curriculum consists of the following requirements:

- 1. First Year Writing —UWRT-150, ENGL-150, or ISTE-101
- 2. **Perspectives**—eight courses designed to introduce students to seven key areas of inquiry that develop ways of knowing the world. The perspective courses introduce students to fundamentals of a liberal arts and sciences discipline (methods, concepts, and theories) while addressing specific general education learning outcomes. Categories include: Ethical, artistic, global, social, science principles, natural science inquiry and mathematical. For Details see the General Education website (http://www.rit.edu/academicaffairs/generaleducation/).
- 3. **Immersion** a series of three related general education courses that further broaden a student's judgment and understanding within a specific area through deeper learning. Choices for immersions can be found here: https://www.rit.edu/programs/immersions
- 4. General Education electives—The remaining general education elective credits may be specified by the academic programs in order for students to fulfill supporting requirements (e.g. math or science, foreign languages, etc.). Some of these credits will be general education electives that can be chosen by the students themselves. Credits in the perspectives category that exceed the minimum requirement will be applied toward the elective credits.

10. ACADEMIC RESOURCES

10.1 Tutoring and Assistance

Each faculty member is required to hold office hours throughout each semester. During these hours, the faculty are available for both student appointments and walk in questions. These hours were designed primarily for students to have scheduled time every week to approach their faculty for tutoring and assistance. These hours should be found in your class syllabi and should be posted outside the office door of each faculty member.

Additionally, the Thomas H. Gosnell School of Life Sciences hires students with proven academic performance in particular courses to serve as "ad-hoc" tutors. Please feel free to contact the main GSOLS office for more information about the use of these tutors.

10.2 Academic Support Center

The Academic Support Center (ASC) is an academic support unit within the Division of Student Affairs providing programs and services that include experiences for students in classroom settings, small group, individual, general study skills, tutoring, and tutor training.

The ASC provides drop-in Math and Physics Tutoring in the **Bates Study Center**, located in Gosnell Hall, the main College of Science building. Tutors are available in the Bates Study Center Monday through Thursday 9am – 9pm and Friday 9am – 6pm.

For more information on the Academic Success Center and its various services, please visit: https://www.rit.edu/studentaffairs/asc/

10.3 College Restoration Program

The College Restoration Program (CRP) is an intensive one-semester only, academic intervention program for students facing academic suspension or probation. Students in serious academic difficulty can dramatically improve their performance with appropriate training and support.

For information regarding eligibility for CRP, visit the website: https://www.rit.edu/studentaffairs/crp/. If you believe CRP may be a good fit for your academic standing, please arrange a meeting with your academic advisor to discuss admission to the program.

10.4 Academic Alert System

The Academic (early) Alert system allows the course instructor to easily inform a student that they may be at-risk in specific area within a course. Both the student and the student's academic advisor will receive a notification of the instructor's concern. Instructors and advisors will take a coordinated approach to help students utilize campus resources and develop an action plan. The following topics exist within the Early Alerts system: Attendance concern, Participation concern, Low assignment scores, Low quiz/test scores, academic concerns, YearOne No Show, Wellness-at-risk-of-failing.

11. STAFF DIRECTORY

Amanda Dolan

Senior Staff Assistant 2102 Gosnell Hall 85 Lomb Memorial Drive 585-475-7235

Lori Hyde

Staff Assistant 2102 Gosnell Hall 85 Lomb Memorial Drive 585-475-7577

Jennifer Liedkie

Laboratory Specialist 1st Floor Stockroom, Gosnell Hall 85 Lomb Memorial Drive 585-475-4041

Gabrielle Crandall

Laboratory Technician 1260 Gosnell Hall 85 Lomb Memorial Drive 585-475-5896

Allison Healy

Laboratory Resource Coordinator 1260 Gosnell Hall 85 Lomb Memorial Drive 585-475-6359

Narayan Wong

Research Technician 1260 Gosnell Hall 85 Lomb Memorial Drive 585-475-6035