

# Biotech Pathways Credit Equivalencies – Biotechnology Technician (2 yr) to Honours Specialization Biology, Nipissing University

BIOL 1006

CHEM 1006

CHEM 1007

CHEM 2306 – Introduction to Organic Chemistry I

BIOL 2116 (Principles of Microbiology)

BIOL 3126 (Molecular Biology Techniques)

2 of:

CHEM 2307 – Introduction to Organic Chemistry II

CHEM 2106 – Introduction to Analytical Chemistry

BIOL 4227 – Nutrition

BIOL 2206 (Principles of Biochemistry)

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2 of:

BIOL 2407 (Environmental Toxicology)

NURS 2037 (Pharmacology)

CRJS 2926 (Introduction to Forensics)

2 of:

BIOL 3306 (Enzymology)

BIOL 3346 (Microscopy Methods & Applications)

BIOL 3557 (Genetics & Society)

BIOL 3597 (Immunology)

1 1000-level MATH

1 1000-level COSC

1 1000-level Social Science/Professional Studies

Total 45  
credits

**BIOTECH Pathways – CREDIT TRANSFER PLAN**  
**Biotechnology Technican (2 yr) to Honours Specialization in Biology –**  
**Nipissing University**

	<b>Year 1</b>		<b>Year 2</b>		<b>Year 3</b>		<b>Year 4</b>	
	<b>BIOL Requires</b>	<b>College Equivalency</b>	<b>BIOL Requires</b>	<b>College Equivalency</b>	<b>BIOL Requires</b>	<b>College Equivalency</b>	<b>BIOL Requires</b>	<b>College Equivalency</b>
	Biol 1006	Yes	Biol 2446	No	Biol 3117	No	9 credits 4000	No
	Biol 1007	No	Biol 2557	No	12 credits 3000	9 @ 3000		
	Chem 1006	Yes	Biol 2336 or Biol 2337	No	18 credits 2000-4000	No		
	Chem 1007	Yes	Biol 2836 or Biol 2837	No				
	Math 1000 level	Yes	Additional 2nd year Biology - Chemistry	18 @ 2000				
	<b>Required Electives</b>							
	3 credits science	Yes	3 credits science	No				
	3 credits humanities (Acad 1601)	No	3 credits humanities	No				
	3 credits social science - professional studies	Yes	3 credits social science - professional studies	No				
<b>Total</b>	<b>30</b>	<b>18</b>	<b>30</b>	<b>18</b>	<b>30</b>	<b>9</b>	<b>30</b>	<b>0</b>
<b>Cumulative</b>	<b>30</b>	<b>18</b>	<b>60</b>	<b>36</b>	<b>90</b>	<b>45</b>	<b>120</b>	<b>45</b>

# BIOTECH Pathway – Remaining Required Credits

## Biotechnology Technician (2 yr) to Honours Specialization in Biology – Nipissing University

### 1000 level

- Biol 1007 (Organismal/Evolutionary Bio)
- 3 credits science
- 6 credits humanities
- 3 credits social science - professional studies

### 2000 level

- Biol 2446 (Principles of Ecology)
- Biol 2557 (Genetics)
- Biol 2336 or Biol 2337 (Biology of Seed/Seedless Plants)
- Biol 2836 or Biol 2837 (Invertebrate/Vertebrate Zoology)

### 3000/4000 level

- Biol 3117 (Biostatistics)
- 24 credits 2000-4000 Biol
- 9 credits 4000 Biol

Remaining proscribed courses described above constitute 63 credits. Including 45 transfer credits, students require an additional 12 credits to complete 120 credits for graduation.

# Additional Information/Considerations

## **Admission Requirements:**

Graduates of a Biotechnology (2 year) Advanced Diploma with a sufficient amount of academic content, and who have achieved a minimum B+ or 75% average may be considered for admission to the Honours Specialization in Biology and will be eligible for a minimum of 45 transfer credits, as assigned.

## **Bridging Models:**

Distance/online – might work in collaboration with Nipissing's Centre for Flexible Teaching & Learning to develop this. However, since at the current time BIOL1007 is offered only in the winter semester, and is a prerequisite for many of the courses students would be required to complete in the Biology program at Nipissing (see slide 4), options are limited in terms of the courses students might be able to enroll in during a bridging semester or via distance education. In consultation with the Department, it was agreed that we would prefer to not open up the option for students to complete a BIOL1007 'equivalent' online without a laboratory component.

Also note that summer sessions are not really an option for bridging core courses (e.g. BIOL1007), as generally only electives are offered during summer sessions. Students might, however, take electives during the summer semester following their first semester of enrolment, in order to complete program requirements within < 2 calendar years.

# Pathways Template – BIOTECH Advanced Diploma

<b>Please specify who your pathway is for:</b> Graduates of Biotechnology Diploma (2 year) or Biotechnology Advanced Diploma (3 year)	<b>Biotechnology Technician Diploma (2 year)</b>
<b>Degree Program</b>	<b>Honours BSc Specialization in Biology (4 year degree program)</b>
<b>Admission Criteria</b>	
Average	75%
Other Admission Selection Criteria	
<b>Credits Granted</b>	
Total # of Transfer Credits/Full Courses Granted	<b>45 credits (15 courses)</b>
Biological Science	<b>21-27 credits (7-9 courses)</b> <i>(note: many of these are 'electives' in the sense that they are not required core courses for the program)</i>
Math/ Other Science	<b>21-27 credits (7-9 courses)</b> <i>(note: many of these are 'electives' in the sense that they are not required core courses for the program)</i>
Analytical/ Laboratory Skills	
Social Science/ Management	<b>3-9 credits (2-4 courses)</b> <i>**this will depend on whether a student chooses to 'count' particular courses as humanities or sciences credits towards their remaining degree requirements</i>
Other/General Education Requirements	
Electives	

# Pathways Template – BIOTECH Advanced Diploma

<p><b>Point of Entry</b> (Summer, Winter, Fall)</p>	<p><b>Winter Entry</b> - would offer students the most flexibility in terms of choice of which of their remaining required courses they might wish to register in (since BIOL1007 is offered in the winter and is a prerequisite for many of the other credits remaining to be completed)</p> <p><b>Fall Entry</b> – would also be possible, but students would have no choice in which of the remaining credit requirements they would be required to fulfill during the first two academic semesters</p> <p>** see slide 4</p>
<p><b>Degree Requirements</b></p>	
<p># of Credits to be Completed</p>	<p><b>63 proscribed required credits + 12 elective credits</b></p> <p>** see slide 4</p>
<p>Bridging</p>	<p>Since at the current time BIOL1007 is offered only in the winter semester, and is a prerequisite for many of the courses students would be required to complete in the Biology program at Nipissing (see slide 4), options are limited in terms of the courses students might be able to enroll in during a bridging semester or via distance education.</p>
<p>Specific Courses/Codes</p>	<p>Biol 1007 (Organismal/Evolutionary Bio) 3 credits science 6 credits humanities 3 credits social science - professional studies Biol 2446 (Principles of Ecology) Biol 2557 (Genetics) Biol 2336 or Biol 2337 (Biology of Seed/Seedless Plants) Biol 2836 or Biol 2837 (Invertebrate/Vertebrate Zoology) Biol 3117 (Biostatistics) 24 credits 2000-4000 Biol 9 credits 4000 Biol</p>
<p>Other Comments or Requirements</p>	<p>Expected time to completion for Pathway students is 5 academic semesters</p> <p>Internal approval is expected in time to offer the Pathway beginning January 2014</p> <p>Pathway is expected to be available prior to review for 3 years</p>