

# BIOLOGY (HONOURS & MAJOR) – CO-OP PROGRAM

## Skills acquired by biology students during their studies

Work term	Honours in biology		Major in biology *	
	Typical formation	Typical skills	Typical formation	Typical skills
<b>Work term I</b> 2 <sup>nd</sup> year completed Initial training Work under supervision	<ul style="list-style-type: none"> <li>▪ Basic knowledge in Botany* and Animal Science* (Invertebrates and Vertebrates), and in Genetics*</li> <li>▪ Basic Statistics*</li> <li>▪ Basic Organic Chemistry* and Biochemistry*</li> <li>▪ Report writing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Animal identification and handling : Invertebrates* and Vertebrates*</li> <li>▪ Knowledge of vascular plant structures*</li> <li>▪ Dissecting techniques and specimen preparation</li> <li>▪ Microscope and Stereomicroscope* observation techniques</li> <li>▪ Basic chemistry laboratory techniques*</li> <li>▪ Computer skills : Word and data processing*, e-mail and Web surfing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Basic knowledge in Botany and Animal Science (Vertebrates), Genetics, Cell Biology</li> <li>▪ Statistics</li> <li>▪ Basic knowledge in Organic Chemistry</li> <li>▪ Report writing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Animal identification and handling (Vertebrates)</li> <li>▪ Knowledge of vascular plant structures</li> <li>▪ Microscope and Stereomicroscope observation techniques</li> <li>▪ Basic chemistry laboratory techniques</li> <li>▪ Computer skills : Word and data processing, e-mail, Web surfing</li> </ul>
<b>Work term II</b> 3 <sup>rd</sup> year completed Work under periodic supervision	<ul style="list-style-type: none"> <li>▪ Basics in Ecology*, Plant Systematics, Aquaculture, Limnology, Parasitology, Mammalogy, Ornithology, Entomology, Ichthyology, Biometry*, Plant Physiology</li> <li>▪ Basics in cellular biology, microbiology, and histology. Practical field and laboratory experience</li> </ul>	Skills previously acquired plus : <ul style="list-style-type: none"> <li>▪ Mammal, bird, fish and insect observation and capture techniques</li> <li>▪ Plant and Animal identification techniques</li> <li>▪ Scientific collection mounting and preservation techniques</li> <li>▪ Water analyses (physical and chemical) techniques</li> <li>▪ Basic microbiological and biochemical techniques*</li> <li>▪ Application of statistics to solving biological problems*</li> <li>▪ Basic histological techniques</li> <li>▪ Scientific report writing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Basics in Ecology and Microbiology</li> <li>▪ Intermediary level Biology courses</li> <li>▪ Minor concentration courses (Sciences or Humanities)</li> </ul>	Skills previously acquired plus : <ul style="list-style-type: none"> <li>▪ Mammal, bird, fish and insect observation and capture techniques</li> <li>▪ Plant and/or Animal identification techniques according to courses taken</li> <li>▪ Basic microbiological techniques</li> <li>▪ Basic biochemical techniques according to courses taken</li> <li>▪ Theoretical and laboratory skills vary with courses taken</li> </ul>
<b>Work term III</b> 4 <sup>th</sup> year completed Autonomous Work under minimal supervision	<ul style="list-style-type: none"> <li>▪ Basics in Microorganism, Plant and Insect Ecology, in Oceanography and Marine Biology, in Ecosystems Conservation and Coastal Management</li> <li>▪ Skill development in written and oral presentation of theoretical and experimental reports</li> <li>▪ Research protocol preparation</li> <li>▪ Data collecting and analysis</li> </ul>	Skills previously acquired plus : <ul style="list-style-type: none"> <li>▪ Plant associations and successions determination, dendrometry, vegetation sampling</li> <li>▪ Marine habitat sampling techniques</li> <li>▪ Forestry map analysis and management techniques</li> <li>▪ Conservation strategies development and application</li> <li>• Scientific report writing</li> <li>• Application of integrated theoretical knowledge to problem solving</li> <li>• Data analysis and experimental results presentation</li> </ul>		

\* Compulsory courses

\*\* B. Sc. Major students take a minor in another subject, generally in science; their background varies.

**Bureau de l'enseignement coopératif**

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