



Science,
Applied Science
& Engineering
Saint John

Bachelor of Science Registration Package

The University of New Brunswick's Bachelor of Science (BSc.) degree provides students with a foundation in the natural, physical, and mathematical sciences. The first year of the Bachelor of Science provides a foundation of understanding in the various subjects so that students may begin to identify which subject(s) they would like to focus on as a major or possibly a minor. By the end of the second term, students are expected to declare their major to help with planning their subsequent terms!

Do you already know your program?

Students entering the Bachelor of Science may already have an idea of their preferred program/major(s). For these students, we have provided a list of courses recommended for the first year. If you choose to follow one of these recommended course lists, please note that does not mean you have declared your major, nor are you locked into that program. There is considerable flexibility and overlap within the first year of each program that allows students to start with one and move towards another if they change their mind.

Not sure which path to take?

Students may not yet know which major(s) they are most interested in. These students may choose to follow one of the recommended course lists from a major they are considering or choose their own assortment of courses based on their interests! Feel free to meet with an Academic Advisor to review and discuss the options!

Know your options!

You can find information about all the programs in the [Undergraduate Academic Calendar](#). There are also [Degree Checklists](#) in the [SASE Advising pages](#) that outline the program requirements. Once you decide on a program and declare your major (you must notify the Office of the Registrar), you can use these checklists to help you keep track of your progress. Please note that there is flexibility within each program so that if you start planning for one program and then change your mind - you CAN change your major even after you've declared! You are encouraged to meet with an Academic Advisor to discuss the options, and then continue to check in at least once a year to review and help plan a program that suits your goals and interests!

First Year Courses

The following tables list the courses recommended for the first year of each Major. Please review the options and read through the Frequently Asked Questions before proceeding to the "Information for Course Registration" found in the UNB Intranet for Students (unbcloud.sharepoint.com/sites/MyUNB/SitePages/Online-Registration.aspx) for instructions and help with the registration process!

F.A.Q.

How many courses should I take per term?

Students planning to complete their degree in 8 regular terms (i.e. 4 years of Fall and Winter terms) would generally take 5 lecture courses (plus their associated labs) per term. However, students may choose to modify their course load depending on their own situations and preferences. Please consult with an Academic Advisor if you would like help planning your courses for this year and subsequent terms.

What is a pre/co-requisite?

Pre-requisite: must be completed BEFORE the desired course begins (though you can *register* before completing the prerequisite).

Co-requisite: must be completed in the same term as the desired course OR in advance.

Should I take MATH 1001 or MATH 1003?

MATH 1001 is a single term introduction to Calculus, whereas MATH 1003 is the first part of the two-term introduction to Calculus. MATH 1003 alone can satisfy a requirement for MATH 1001. It is recommended that students take MATH 1003 if they plan to take more courses in Mathematics, Statistics or Economics.

What are Electives and do I need them?

Each program has a set of required Core courses (i.e. courses directly related to your major), as well as a component of Elective courses. Electives are courses in subjects outside of your main area of study. It is recommended that students first identify the required core courses they will need, and then if there is room in the course load, explore the course offerings in any additional subjects that interest you. Please refer to course and program descriptions in the Undergraduate Academic Calendar as well as the information in the Degree Checklists for additional program-specific regulations surrounding electives.

What is the best choice for an Elective?

Every student will have different interests, goals, and skills - *you* have to decide what *you* would like to take! First look through your program information to identify your elective requirements and any courses that will not count towards your Major. Then you can:

- (a) use Course Catalogue to look through the course descriptions in subjects you are interested in,
- (b) try the Advanced Search to see what courses are offered during the times you are available, and/or
- (c) identify the admission/academic requirements if you have a career goal(s) that involve a professional program and/or test
(E.g. Dentistry and Optometry programs and the MCAT may require you to have some Physics).

What if I might want to change my courses?

You are able to tweak your schedule even in the first week of classes (see [Calendar of Academic Dates](#)) so if you are stuck deciding between courses, you have time to learn more about them to see which one you like best! Students are able to adjust their course registrations up to September 17th, 2021 (nine days after the start of class!) and modify 2022 Winter course registrations until January 21st, 2022 (classes start January 10th, 2022).

Course Recommendations for BSc. General Science

		FALL		WINTER		
Five Science Subjects	1	BIOL1105	Biological Principles, Part I	1	BIOL1017 BIOL1205	Applications in Biology, Part II Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	GEOL1044	The Earth: Its Origin and Evolution	3	GEOL1074	Earth Processes, Resources and the Env.
	4	MATH1003	Introduction to Calculus I	4	MATH 1013	Introduction to Calculus II
	5	PHYS1011	Introductory Physics I	5	PHYS1012	Introductory Physics II
		PHYS1021	Experiments in Introductory Physics I		PHYS1022	Experiments in Introductory Physics II

Course Recommendations for BSc. Mathematics, Mathematics+Statistics, and Statistics Majors

Req'd	1	MATH1003	Introduction to Calculus I	1	MATH 1013	Introduction to Calculus II
	2	MATH1503	Introduction to Linear Algebra	2	Elective	
	3	STAT 1793	Introduction to Probability and Statistics I	3	STAT2793	Introduction to Probability and Statistics II
Choose two of the First year Science Options	1	CHEM1041	General Chemistry I	Take the same two sciences chosen for the fall term	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	2	GEOL1044	The Earth: Its Origin and Evolution		GEOL1074	Earth Processes, Resources and the Env
	3	PHYS1011	Introductory Physics I		PHYS1012	Introductory Physics II
		PHYS1021	Experiments in Introductory Physics I		PHYS1022	Experiments in Introductory Physics II

Course Recommendations for BSc. Mathematics+Economics Majors

Req'd	1	MATH1003	Introduction to Calculus I	1	MATH 1013	Introduction to Calculus II
	2	MATH1503	Introduction to Linear Algebra	2	STAT 1793	Introduction to Probability and Statistics I
	3	ECON 1023	Introduction to Macroeconomics	3	ECON 1013	Introduction to Microeconomics
Choose two of the First year Science Options	1	CHEM1041	General Chemistry I	Take the same two sciences chosen for the fall term	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	2	GEOL1044	The Earth: Its Origin and Evolution		GEOL1074	Earth Processes, Resources and the Env
	3	PHYS1011	Introductory Physics I		PHYS1012	Introductory Physics II
		PHYS1021	Experiments in Introductory Physics I		PHYS1022	Experiments in Introductory Physics II

Course Recommendations for various BSc. Biology and Psychology related majors

Major	FALL			WINTER		
BSc. Biology	1	BIOL1105	Biological Principles, Part I	1	BIOL1017	Applications in Biology, Part II
					BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	GEOL1044	The Earth: Its Origin and Evolution	3	STAT1793	Introduction to Probability and Statistics I
	4	MATH1001	Calculus for Life Sciences	4	Elective	
5	PHYS1011	Introductory Physics I	5	Elective		
	PHYS1021	Experiments in Introductory Physics I				
BSc. Biology- Psychology	1	BIOL1105	Biological Principles, Part I	1	BIOL1017	Applications in Biology, Part II
					BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	MATH1001	Calculus for Life Sciences	3	PSYC1004	Introductory Psychology II
	4	PSYC 1003	Introductory Psychology I	4	Elective	
5	Elective		5	Elective		
BSc. Env. Biology	1	BIOL1105	Biological Principles, Part I	1	BIOL1017	Applications in Biology, Part II
					BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	BIOL1302	Introduction to Environmental Biology
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1072	General Chemistry II
	3	GEOL1044	The Earth: Its Origin and Evolution	3	CHEM1077	Introductory Chemistry Laboratory II
	4	MATH1001	Calculus for Life Sciences	4	ECON 1013/23	Introduction to Micro/Macroeconomics
5	PHYS1011	Introductory Physics I	5	Elective		
	PHYS1021	Experiments in Introductory Physics I				
BSc. Marine Biology	1	BIOL1105	Biological Principles, Part I	1	BIOL1017	Applications in Biology, Part II
					BIOL1202	Introduction to Marine Science
	2	CHEM1041	General Chemistry I	2	BIOL1205	Biological Principles, Part II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1072	General Chemistry II
	3	GEOL1044	The Earth: Its Origin and Evolution	3	CHEM1077	Introductory Chemistry Laboratory II
	4	MATH1001	Calculus for Life Sciences	4	STAT1793	Introduction to Probability and Statistics I
5	PHYS1011	Introductory Physics I	5	Elective		
	PHYS1021	Experiments in Introductory Physics I				
BSc. Psychology	1	BIOL1105	Biological Principles, Part I	1	BIOL1017	Applications in Biology, Part II
					BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	MATH1001	Calculus for Life Sciences	3	PSYC1004	Introductory Psychology II
	4	PSYC 1003	Introductory Psychology I	4	Elective	
5	Elective		5	Elective		

Course Recommendations for first year SJ courses leading to UNBF programs

Major	FALL			WINTER		
BSc. Chemistry (1st yr @ SJ)	1	BIOL1105	Biological Principles, Part I	1	BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	MATH1003	Introduction to Calculus I	3	MATH 1013	Introduction to Calculus II
	4	PHYS1011	Introductory Physics I	4	PHYS1012	Introductory Physics II
		PHYS1021	Experiments in Introductory Physics I		PHYS1022	Experiments in Introductory Physics II
5	Elective		5	Elective		
BSc. Earth Science (1st yr @ SJ)	1	BIOL1105	Biological Principles, Part I	1	BIOL1205	Biological Principles, Part II
	2	CHEM1041	General Chemistry I	2	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	3	GEOL1044	The Earth: Its Origin and Evolution	3	GEOL1074	Earth Processes, Resources and the Env
	4	MATH1003	Introduction to Calculus I	4	MATH 1013	Introduction to Calculus II
	5	PHYS1011	Introductory Physics I	5	PHYS1012	Introductory Physics II
PHYS1021		Experiments in Introductory Physics I	PHYS1022		Experiments in Introductory Physics II	
BSc. Physics (1st yr @ SJ)	1	CHEM1041	General Chemistry I	1	CHEM1072	General Chemistry II
		CHEM1046	Introductory Chemistry Laboratory I		CHEM1077	Introductory Chemistry Laboratory II
	2	GEOL1044	The Earth: Its Origin and Evolution	2	GEOL1074	Earth Processes, Resources and the Env
	3	MATH1003	Introduction to Calculus I	3	MATH 1013	Introduction to Calculus II
	4	PHYS1011	Introductory Physics I	4	PHYS1012	Introductory Physics II
		PHYS1021	Experiments in Introductory Physics I		PHYS1022	Experiments in Introductory Physics II
5	Elective		5	Elective		