

# Choosing an Integrated Science Option



Integrated Science is a full-time, first-year program designed to prepare BSc students for undergraduate science honours degrees. The program consists of one core course of 18 credit hours (SCIE 1505.18), a companion course of 3 credit hours (Ethics in Science, PHIL 1050.03) and up to three science co-requisite courses (see below). The core, along with PHIL 1050, combines a full year of Biology, Psychology, and Writing, with a half-year of Earth Sciences, Philosophy, and Statistics.

The Integrated Science cohort (70-80 students maximum) does its SCIE 1505 and PHIL 1050 classwork together. They also take courses in Chemistry, Math, and (optionally) Physics with other BSc students. When registering, Integrated Science students select one of three Options of co-requisite course blocks. All Options include a full-year of Chemistry. They differ in their Math and Physics courses. Other

**Option A** includes a full-year of Calculus and calculus-based Physics (PHYC 1190/1290) and regular Calculus (MATH 1000/1010). For a more in-depth Calculus course, the latter can be replaced with MATH 1500.

**Option B** includes a full-year of Calculus (MATH 1000/1010) and full year of Physics for the Life Sciences (PHYC 1300) to prepare students for degree programs in certain life sciences where a full year of Calculus and Physics is recommended, or to maximize degree options (e.g. ability to complete a double major or combined honours degree in both life and physical sciences). If desired, this option can be modified to include only one term of Calculus and/or Physics.

**Option C** includes one term of Calculus for Life Sciences (MATH 1215) to prepare students for degree programs in life sciences. Physics is not included in this option.

The table below summarizes the core components and co-requisite subjects in each Option. *See other side of page for detailed list of suggested Options for specific degrees or programs.*

Subject	Included in SCIE 1505 or taken as a co-requisite*	Co-requisite or course equivalent component of SCIE 1505**		
		Option A: Physical Sciences	Option B: Biomedical Sciences	Option C: Life Sciences
Biology	SCIE 1505	BIOL 1010.03/1011.03	BIOL 1010.03/1011.03	BIOL 1010.03/1011.03
Chemistry	Co-requisite	CHEM 1011.03/1012.03	CHEM 1011.03/1012.03	CHEM 1011.03/1012.03
Earth Science	SCIE 1505	ERTH 1080.03	ERTH 1080.03	ERTH 1080.03
Statistics	SCIE 1505	STAT 1060.03	STAT 1060.03	STAT 1060.03
Math (Calculus)	Co-requisite	MATH 1000.03/1010.03	MATH 1000.03/1010.03	MATH 1215.03
Physics	Co-requisite	PHYC 1190.03/1290.03	PHYC 1300.06	(none)
Psychology	SCIE 1505	PSYO 1011.03/1012.03	PSYO 1011.03/1012.03	PSYO 1011.03/1012.03
Writing in Science	SCIE 1505	SCIE 1111.03	SCIE 1111.03	SCIE 1111.03
Humanities	Co-requisite	PHIL 1050.03	PHIL 1050.03	PHIL 1050.03
<b>Total credit hours***</b>		<b>39</b>	<b>39</b>	<b>30</b>

\* SCIE 1505 means that the equivalent of the course shown is integrated into SCIE 1505; Co-requisite means students take this as a separate course with other BSc students and get a separate grade on their transcripts

\*\* Course equivalent means that SCIE 1505 satisfies the same prerequisite as the listed course

\*\*\* 30 credit hours is considered a full course load; students who register for Options A and B will be taking an overload and can expect a significantly heavier workload

**List of suggested Integrated Science options** for incoming first-year students, depending on their desired major or program of interest:

<b>Dalhousie Science Degree (BSc) or Professional School Program</b>	<b>Option A Physical Sciences or Engineering</b>	<b>Option B Biomedical Sciences</b>	<b>Option C Life Sciences (no Physics, one term Calculus)</b>
<i>Atmospheric Science</i>	+		
<i>Biochemistry &amp; Molecular Biology</i>		+	+
<i>Biochemistry &amp; Microbiology (joint honours)</i>		+	+
<i>Biology</i>		+	+
<i>Chemistry</i>	+	+	
<i>Computer Science (double major/joint honours)</i>	+	+	
<i>Dentistry *</i>		+	(+)
<i>Earth Science ^</i>	+		
<i>Economics</i>	+	+	
<i>Environmental Science</i>	+	+	+
<i>Environment, Sustainability and Society</i>			+
<i>Engineering</i>	+		
<i>Law *</i>	+	+	+
<i>Marine Biology</i>		+	+
<i>Mathematics</i>	+	+	
<i>Medical Science**</i>			(+)
<i>Medicine*</i>	+	+	(+)
<i>Microbiology &amp; Immunology</i>		+	+
<i>Neuroscience</i>		+	(+)
<i>Ocean Sciences</i>	+	+	
<i>Occupational Therapy *</i>		+	+
<i>Pharmacy</i>			+
<i>Physics</i>	+		
<i>Physiotherapy *</i>		+	(+)
<i>Psychology</i>		+	+
<i>Statistics</i>	+	+	

+ Suggested option (+) Physics may be required or recommended, but it can be taken in a later year instead

^ Option A is suggested for Earth Science degrees, which may require MATH 1000/1010 and PHYC 1280/1290

\* These are graduate-level programs, and thus require an undergraduate degree or several years of study

\*\* Students normally are accepted to Medical Science before starting the Integrated Science program

The Integrated Science program satisfies the Writing requirement, the Social Science requirement, the Science requirement, and with one Calculus course, the Math requirement for BSc students at Dalhousie. It satisfies *half* of the Humanities/Language requirement; another Humanities or Language course is needed before graduation. Our writing course serves in lieu of English for admittance to the Dalhousie Pharmacy program.

*Integrated Science is a special program under the Faculty of Science at Dalhousie University. For more details, including entrance requirements and admissions procedures, please see [disp.science.dal.ca](http://disp.science.dal.ca) or contact us by phone (902) 494-2765 or e-mail: [disp@dal.ca](mailto:disp@dal.ca). To discuss your options and whether this program is right for you, please e-mail Dr. Cindy Staicer, Program Director, at [cindy.staicer@dal.ca](mailto:cindy.staicer@dal.ca).*