**Honours Materials & Nanosciences degree requirements – 2019**

These sheets were created to help you plan your courses, not to provide an official list of your graduation requirements. It is ultimately your responsibility to ensure you meet your graduation requirements which are officially listed in the undergraduate calendar. For example, a mistake on this sheet cannot be used as a reason to graduate without meeting official requirements. Please refer to the undergraduate calendar or arrange a meeting with an undergraduate advisor to clarify any concerns.

* ENGL/SPCOM 193

**MNS Courses**

* MNS 101
* MNS 102
* MNS 201L
* MNS 211
* MNS 221
* MNS 321
* MNS 322
* MNS 331
* MNS 410 **OR** 431

**Math Courses**

* MATH 114
* MATH 127
* MATH 128
* MATH 227
* MATH 228

**Chemistry Courses**

* CHEM 120
* CHEM 120L
* CHEM 123
* CHEM 123L
* CHEM 209
* CHEM 266L
* CHEM 356

**Physics Courses**

* PHYS 121
* PHYS 121L
* PHYS 122
* PHYS 132L
* PHYS 232L
* PHYS 242
* PHYS 342

**2.25 units chosen from the following:**

* BIOL 240 / BIOL 240L
* BIOL 301
* BIOL 308
* BIOL 373 / BIOL 373L
* PHYS 124
* PHYS 233
* PHYS 234
* PHYS 263
* PHYS 358
* PHYS 359
* PHYS 383

**8.75 units elective:**

* CHEM 237L **OR** CHEM 250L
* CHEM 233 **OR** CHEM 237
* CHEM 264 **OR** CHEM 266
* CHEM 254 **OR** PHYS 358
* PHYS 280 **OR** PHYS 335
* Program elective 300+
* Program elective 300+
* Program elective 300+
* Program elective 300+
* Program elective 400
* Program elective 400
* Program elective
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**Co-op Requirements**

* PD 1
* PD 11
* PD elective
* PD elective
* COOP 1
* COOP 2
* COOP 3
* COOP 4

**Program Electives**

* CHEM 212 Structure and Bonding
* CHEM 220 Intro Analytical Chemistry
* CHEM 220L Analytical Chemistry Lab 1
* CHEM 221 Multi-Component Analysis
* CHEM 267 Basic Organic Chemistry 2
* CHEM 310 Transition Element Compounds and Inorganic Materials
* CHEM 333 Metabolism 1
* CHEM 340 Introduction to Computational Chemistry
* CHEM 350 Chemical Kinetics
* CHEM 357 Physical Biochemistry
* CHEM 400 Special Topics in Chemistry (excluding Special Topics: Polymer Properties and Polymerization)
* CHEM 430 Special Topics in Biochemistry
* CHEM 494A Research Project and CHEM 494B Research Project
* PHYS 225 Modelling Life Physics
* PHYS 236 Computational Physics 1
* PHYS 256 Geometrical and Physical Optics
* PHYS 334 Quantum Physics 2
* PHYS 359 Statistical Mechanics
* PHYS 360A Modern Physics Laboratory 1
* PHYS 360B Modern Physics Laboratory 2
* PHYS 364 Mathematical Physics 1
* PHYS 365 Mathematical Physics 2
* PHYS 380 Molecular and Cellular Biophysics
* PHYS 391 Electronics
* PHYS 392 Scientific Measurement and Control
* PHYS 396 Biophysics of Imaging
* PHYS 434 Quantum Physics 3
* PHYS 435 Current Topics in Condensed Matter Physics
* PHYS 437A Research Project and PHYS 437B Research Project (continued)
* PHYS 461 Nanophysics