

B.Ed. in Teaching and Learning at the Secondary Level

Program Overview (Science and Technology Profile)

Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning at the Secondary Level, students must complete a 150-credit program. Students entering with a DEC from a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC from a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

Foundational Courses (30 credits + 2 Labs)

Required Courses:

EDU 102 Philosophy of Education
 EDU 122 Using Technology to Support Learning
 EDU 203 Educational Psychology
 EDU 205 Education, Colonialism and De-Colonization
 EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
 EDU 305 Social Justice and Anti-Discrimination Education
 EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
 EDU 349 Professional Seminars Lab (1 credit)
 EDU 401 Quebec Education Policy and Law EDU 407 Individual Differences
 ILT 101 Information Literacy Critical Thinking Lab (1 credit)

One of:

EDU 204 Indigenous Education
 EDU 211 Introduction to Young Adult Literature and Texts “Beyond the Canon”
 EDU 214 Gender and Sexuality in Education
 EDU 218 History of Education
 EDU 219 Getting dirty: Hands-on, experiential teaching and learning for elementary and secondary student
 EDU 220 Linguistic Diversity
 EDU 221 Methods in Plurilingual and Pluricultural Teaching and Learning
 EDU 222 Teaching and Learning Online
 EDU 285 The Reading Process
 EDU 303 Sociology of Education
 SLP 399 Situated Learning and Praxis

Methods Courses (18 credits)

EDU 339 Effective Teaching and Evaluation Methods I
 EDU 346 Methods in Teaching Mathematics, Science and Technology at the Secondary Level I
 EDU 410 Effective Teaching and Evaluation Methods II
 EDU 416 Methods in Teaching Mathematics, Science and Technology at the Secondary Level II
 EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

Practica (24 credits)

EDU 129 Orientation to Professional Practice
 EDU 229 Reflective Practicum – Secondary
 EDU 329 Professional Practice (6 credits)
 EDU 429 Internship (12 credits)

Disciplinary Courses (48 credits + labs + 21 prerequisite credits)

Students entering this profile must first complete or have credited the following prerequisites:

BIO 196 Introductory Biology I: Introduction to Cellular and Molecular Biology (with lab BIL 196)

CHM 191 General Chemistry I (with lab CHL 191)

CHM 192 General Chemistry II (with lab CHL 192)

MAT 191 Calculus I

MAT 192 Calculus II

PHY 191 Introductory Physics I – Mechanics (with lab PHL 191)

PHY 192 Introductory Physics II – Electricity and Magnetism (with lab PHL 192)

Required Courses:

BIO 201 Cellular & Molecular Biology

BIO 205 Diversity of Life I (with lab BIL 205)

BIO 233 Human Anatomy

CHM 121 Inorganic Chemistry I

CHM 131 Physical Chemistry I

CHM 141 Analytical Chemistry (with lab CHL 141)

EDU 326 Engineering for Science and Technology Teachers

ESG 100 Introduction to Environmental Studies

ESG 127 Introduction to Physical Geography

PHY 101 Statistical Methods in Experimental Sciences

PHY 206 Waves and Optics (with lab PHL 206)

PHY 207 Thermal and Fluid Physics

PHY 208 Introduction to Mechanics

PHY 214 Astronomy & Astrophysics

Two of:

BCH 210 General Biochemistry

BIO 206 Diversity of Life II (with lab BIL 206)

BIO 207 Intro to Evolution and Ecology

BIO 208 Genetics (with lab BIL 208)

BIO 320 Programmed Cell Death

BIO 327 Advanced Ecology

BIO 329 Invertebrate Biology (with lab BIL 329)

BIO 331 Freshwater Biology (with lab BIL 331)

BIO 336 Animal Physiology I

BIO 341 Population genetics and evolution

BIO 349 Medical and Forensic Entomology

BIO 354 Insect Biodiversity

BIO 358 Animal Behaviour

BIO 359 Human Genetics

CHM 111 Organic Chemistry I (with lab CHL 111)

CHM 211 Organic Chemistry II (with lab CHL 211)

CHM 225 Inorganic Chemistry II (with lab CHL 225)

CHM 231 Physical Chemistry II (with lab CHL 231)

CS 201 Foundations of Computer Science (with lab CSL 201)

ESG 226 Physical Oceanography

ESG 227 Biogeochemical and Environmental Oceanography

ESG 250 Geomorphology

ESG 251 Biogeography

ESG 265 The Atmosphere and Weather
ESG 267 Global Environmental Change: a physical perspective
ESG 269 The Earth's Crust
MAT 108 Matrix Algebra
MAT 200 Introduction to Discrete Mathematics

MAT 202 Modern Geometry: Euclidean to Fractal (with lab MAL 202)
MAT 206 Advanced Calculus I
MAT 209 Linear Algebra
PHY 273 Observational Astronomy I

Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification

(P/F, students who do not pass will not be permitted to register in the third practicum)

