

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

Program Overview (Science and Technology)

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 at 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 at 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 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
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 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts “Beyond the Canon”
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
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 Enriched Calculus I
MAT 192 Enriched 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 Soils and Vegetation
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)