

## SELECTIVES AND ADVANCED SELECTIVES

**NOTE: If the course does not appear on the timetable, it is not offered that year**

Note that a **Selective** is a course from a predetermined list, provided by the program, whereas an **Elective** is any course at Dalhousie University. In cases where prerequisites for Selectives are not offered as Medical Sciences core courses, Elective space can be used to fulfill these prerequisites.

### Selectives:

#### Biochemistry & Molecular Biology

BIOC 2610 - Introductory Biochemistry Lab  
BIOC 3300 - Intermediary Metabolism  
BIOC 3400 - Nucleic Acid Biochemistry & Molecular Biology  
BIOC 3501 – Introduction to Biotechnology (**new Fall 2024**)  
BIOC 3610 – Research Methods in Biomedical Sciences (**replaced by 3501 in 2024/25**)  
BIOC 3700 - Biomolecular Chemistry

#### Biology

BIOL 2003 – Animal Diversity  
BIOL 2040 - Evolution  
BIOL 2060 - Introductory Ecology  
BIOL 3046 - Molecular Evolution  
BIOL 3050 - Developmental Biology  
BIOL 3322 – Parasitology  
BIOL 3326 – Vertebrate Functional Morphology  
BIOL 3328 – Medical Entomology (**only offered in Summer**)  
BIOL 3421/ANAT 3421 - Comparative Vertebrate Histology (**not offered in 2024/25**)  
BIOL 3430/ANAT 2160 - Introduction to Human Histology

#### Biomedical Engineering

BMNG 3000 – Technology in Medicine

#### Chemistry

CHEM 2301 - Introduction to Physical Chemistry I  
CHEM 2304 - Introduction to Physical Chemistry II  
CHEM 3601 – Chemistry of Living Systems

#### Economics

ECON 2231 – Perspective in Health Economics (**not offered in 2024/25**)  
ECON 3231 – Topics in Health Economics (**not offered in 2024/25**)

#### Environmental Science

ENVS 3400 – Environment and Human Health

#### Health

HLTH 2000 – Centering Black Canadian Health  
HLTH 2201 – Introduction to Aboriginal Peoples' Health & Healing

#### Humanities and Social Sciences

CLAS 2888 – Greek and Latin Terminology for the Medical Sciences  
ENGL 2030 – Literature, Health, and Healing (**not offered on 2024/25**)

ENGL 3320 – Literature and the History of Medicine (**not offered on 2024/25**)  
HIST 3916 – Health and Disease in Medieval Society (**not offered on 2024/25**)  
HSTC 2102 – Origins of Modern Medicine  
HSTC 2202 – The Beginnings of Western Medicine: The Birth of the Body  
HSTC 2206/CTMP 2203 – Biopolitics: Human Nature in Contemporary Thought (**not offered on 2024/25**)  
HSTC 2211 – Introduction to the History of Science I: From the Ancients to the Birth of the Modern  
HSTC 2212 - Introduction to the History of Science II: From the Birth of the Modern to the Present  
HSTC 2350 – The Body in Early Modern Europe  
HSTC 3101/CTMP 3204 – Human Experiments (**not offered in 2024/25**)  
HSTC 3102 – Plagues and People  
HSTC 3121 – In Search of the Philosopher’s Stone: The History of European Alchemy (**not offered in 2024/25**)  
INTD 3115 - Global Health in the 21<sup>st</sup> Century  
PHIL 2805 - Ethics and Health Care: Patient Care  
PHIL 2810 – Ethics and Health Care: Social Policy (can only take one of 2805 or 2810 as selective, other as core)  
PHIL 3800 – Philosophy of Medicine (**not offered in 2024/25**)  
SOSA 2502 - Biomedicine and the Illness Experience (**not offered in 2024/25**)  
SOSA 3135 – The Social Organization of Health Care (**not offered in 2024/25**)  
SOSA 3143 - Health, Illness, and the World System (**not offered in 2024/25**)  
SOSA 3145/GWST 3800 - Gender and Health (**not offered in 2024/25**)  
SOSA 3147 – Aging Cross Culturally (**not offered in 2024/25**)  
SOSA 3148 - The Sociology of Addiction/ Drugs, Health, and Society (**not offered in 2024/25**)  
SOSA 3403 – Qualitative and Field Methods

#### Kinesiology

KINE 2465 – Introduction to Biomechanics (**exclusion with PHYC 2610**)  
KINE 3485 – Psychology of Sport & Physical Activity

#### Mathematics

MATH 1010 – Differential and Integral Calculus II

#### Medical Neuroscience

ANAT 2160/BIOL 3430 - Introduction to Human Histology  
ANAT 3421/BIOL 3421 - Comparative Vertebrate Histology (**not offered in 2024/25**)

#### Microbiology/Immunology

MICI 2400 – Laboratory Methods in Microbiology & Immunology  
MICI 3114 - Virology  
MICI 3119 - Physiology of Prokaryotic Cell  
MICI 4115 – Medical Immunology (**not offered in 2024/25**)  
MICI 4218 – Clinical Microbiology

#### Neuroscience

NESC 2130/PSYO 2130 – Introduction to Cognitive Psychology  
NESC 2570/PSYO 2570/PHYL 2570 - Cellular Neuroscience  
NESC 3043/PSYO 3043 – Neurobiology of Learning (**not offered in 2024/25**)  
NESC 3170/PSYO 3170 – Hormones and Behaviour  
NESC 3227/PSYO 3227 – Principles of Human Neuropsychology  
NESC 3271/PSYO 3271 – Developmental Origins of Health & Disease  
NESC 3670 - Genes, Brain and Behaviour

#### Pharmacology

PHAC 3333 - Pharmacology of Medicinal Herbs and Fungi

## Physics

- PHYC 1290 – Introduction to Physics (**exclusion with PHYC 1320**)
- PHYC 1320 – Physics in and Around You (**exclusion with PHYC 1290**)
- PHYC 2250 – Physics of Biological and Medical Technology (**not offered in 2024/25**)
- PHYC 2610 – Introduction to Biomechanics (**exclusion with KINE 2465; not offered in 2024/25**)

## Physiology & Biophysics

- PHYL 2570/NESC 2570/PSYO 2570 – Cellular Neuroscience
- PHYL 3120 - Exercise Physiology in Health & Disease
- PHYL 3320 - Human Cell Physiology
- PHYL 3420 - Sensory Physiology (**not offered in 2024/25**)
- PHYL 3520 - Core Concepts in Medical Physiology (**exclusion with PHYL 4504**)
- PHYL 3600 – Directed Project in Physiology
- PHYL 3620 – Human Physiology Lab

## Psychology

- PSYO 2080 - Social Psychology
- PSYO 2090 - Developmental Psychology
- PSYO 2130/NESC 2130 – Introduction to Cognitive Psychology
- PSYO 2220 – Adult Psychopathology
- PSYO 2444 – Forensic Psychology
- PSYO 2570/ NESC 2570/PHYL 2570 – Cellular Neuroscience
- PSYO 2770 - Brain & Behaviour (**not offered in 2024/25**)
- PSYO 3043/NESC 3043 – Neurobiology of Learning (**not offered in 2024/25**)
- PSYO 3129 - Childhood Psychopathology (Instructor Permission)
- PSYO 3170/NESC 3170 – Hormones and Behaviour
- PSYO 3227/NESC 3227 – Principles of Human Neuropsychology
- PSYO3271/NESC 3271 – Developmental Origins of Health & Disease

## Science

- SCIE 2111 (0 credit) & 2112 – Becoming a Scientist I & II
- SCIE 3100 – Experiential Learning in Medical Sciences
- SCIE 3211 – Communicating Science to Non-Scientists

## **Advanced Selectives:**

### Biochemistry & Molecular Biology

- BIOC 4010 – Bioinformatics (**not offered in 2024/25**)
- BIOC 4302 – Biochemistry of Lipids
- BIOC 4305 – Mechanisms of Signal Transduction
- BIOC 4403 – Genes and Genomes
- BIOC 4404 – Gene Expression
- BIOC 4501 – Medical Biotechnology I
- BIOC 4700 – Proteins (**not offered in 2024/25**)
- BIOC 4701 – Enzymes
- BIOC 4813 – Biochemistry of Clinical Disorders

### Biology

- BIOL 4020 – Advanced Cell Biology

### Computer Science

CSCI 4180 – Introduction to Computational Biology and Bioinformatics (**not offered in 2024/25**)  
CSCI 4181 – Algorithms in Bioinformatics

### Humanities and Social Sciences

PHIL 4801 – Topics in Ethics and Healthcare (offered every 3-4 years)  
POLI 4260 - The Politics of Health Care (**not offered in 2024/25**)

### Medical Neuroscience

ANAT 4010 – Advanced Human Anatomy

### Microbiology & Immunology

MICI 4027 - Molecular Mechanisms of Cancer  
MICI 4033 - Advanced Microbial Genetics (**not offered in 2024/25**)  
MICI 4100 – Processes & Mediators of Inflammation  
MICI 4114 – Advanced Topics in Molecular & Medical Virology  
MICI 4116 – Current Topics in Mucosal Immunology  
MICI 4302 – Clinical & Molecular Immunology (**not offered in 2024/25**)

### Neuroscience

NESC 3180/PSYO 3180 - Psychoneuroimmunology/Ecological Immunology  
NESC 3970/PSYO 3970 – Molecular Neuroscience  
NESC 4185/PHYL 4000 - Current Advances in Synaptic Function and Plasticity

### Pathology

PATH 4035 - Human Genetics  
PATH 4100 – Critical Thinking in Neuropathology

### Pharmacology

PHAC 4001 - Pharmacology II (**not offered anymore**)  
PHAC 4403 – Systems Pharmacology I  
PHAC 4409 – Systems Pharmacology II

### Physiology & Biophysics

PHYL 4000/NESC 4185 - Current Advances in Synaptic Function and Plasticity  
PHYL 4324 - Endocrine Physiology  
PHYL 4504 – Respiratory Physiology (**exclusion with PHYL 3520**)  
PHYL 4680 - Cardiovascular Physiology (**not offered in 2023/24**)

### Psychology

PSYO 3180/NESC 3180 - Psychoneuroimmunology/Ecological Immunology  
PSYO 3970/NESC 3970 – Molecular Neuroscience

### Science

SCIE 4101 & 4102 – Directed Project in Medical Sciences I & II  
SCIE 4444 – Leadership in Science (practicum must be health-related)