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 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 2023/24) BIOL 3430/ANAT 2160 - Introduction to Human Histology **Biomedical Engineering** BMNG 3000 - Technology in Medicine Chemistry CHEM 2301 - Introduction to Physical Chemistry I

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 2023/24**) ECON 3231 – Topics in Health Economics (**not offered in 2023/24**)

Environmental Science ENVS 3400 – Environment and Human Health

Humanities and Social Sciences ENGL 2030 – Literature, Health, and Healing (offered in alternate years to ENGL 3320) ENGL 3320 – Literature and the History of Medicine (offered in alternate years to the ENGL 2030) HSTC 2102 – Origins of Modern Medicine HSTC 2202 – The Beginnings of Western Medicine: The Birth of the Body HSTC 2206 – Biopolitics: Human Nature in Contemporary Thought 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 (not offered in 2023/24) HSTC 3101/CTMP 3204 – Human Experiments HSTC 3121 – In Search of the Philosopher's Stone: The History of European Alchemy INTD 3115 - Global Health in the 21st 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 2023/24) SOSA 2502 - Biomedicine and the Illness Experience (not offered in 2023/24) SOSA 3135 – The Social Organization of Health Care (not offered in 2023/24) SOSA 3143 - Health, Illness, and the World System (not offered in 2023/24) SOSA 3145/GWST 3800 - Gender and Health (not offered in 2023/24) SOSA 3147 – Aging Cross Culturally (not offered in 2023/24) SOSA 3148 - The Sociology of Addiction/ Drugs, Health, and Society SOSA 3403 – Qualitative and Field Methods Interprofessional Health Education IPHE/IDHS 2201 – Introduction to Aboriginal Peoples' Health & Healing 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 2023/24**)

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 2023/24**) 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 2023/24**) NESC 3170/PSYO 3170 – Hormones and Behaviour NESC 3227/PSYO 3227 – Principles of Human Neuropsychology NESC 3670 - Genes, Brain and Behaviour

Pharmacology PHAC 3333 - Pharmacology of Medicinal Herbs and Fungi (not offered until 2025)

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 2023/24)
PHYC 2610 – Introduction to Biomechanics (exclusion with KINE 2465; (PHYL)not offered in 2023/24))

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 2023/24**) 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 2023/24**) PSYO 3043/NESC 3043 – Neurobiology of Learning (**not offered in 2023/24**) PSYO 3129 - Childhood Psychopathology (Instructor Permission) PSYO 3170/NESC 3170 – Hormones and Behaviour PSYO 3227/NESC 3227 – Principles of Human Neuropsychology

Science SCIE 2111 (0 credit) & 2112 – Becoming a Scientist I & II SCIE 3100 – Experiential Learning in Medical Sciences

Advanced Selectives:

Biochemistry/Molecular Biology BIOC 4010 – Bioinformatics 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 2023/24**) BIOC 4701 – Enzymes

Biology BIOL 4020 – Advanced Cell Biology (not offered in 2023/24)

Computer Science CSCI 4180 – Introduction to Computational Biology and Bioinformatics (**not offered in 2023/24**) 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

Medical Neuroscience ANAT 4010 – Advanced Human Anatomy Microbiology/ Immunology MICI 4027 - Molecular Mechanisms of Cancer MICI 4033 - Advanced Microbial Genetics (**not offered in 2023/24**) 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 2023/24**)

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 1 PHAC 4409 – Systems Pharmacology 2

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)