

Name: _____ ID: _____ Date: _____

Students may follow the **Standard Schedule** OR the **Advanced Schedule**. Further details are [online](#).

Students are strongly advised to **follow these schedules as closely as possible** so that prerequisites are met for the following terms. Consequences of deviating from this schedule are the responsibility of the student.

STANDARD SCHEDULE

YEAR 1

TERM 1, FALL

- ☐ ENSC 151-4 Intro to software development
- ☐ ENSC 100W-3 Engineering, Science and Society
- ☐ ENSC 105W-3 Process, Form and Conv. in Prof. Genres
- ☐ ENSC 120-2 Intro to Electronics Lab Instruments
- ☐ MATH 151-3 Calculus I (or MATH 150-4)

TERM 2, SPRING

- ☐ ENSC 180-3 Intro to Engineering Analysis
- ☐ MATH 152-3 Calculus II
- ☐ MATH 232-3 Applied Linear Algebra
- ☐ PHYS 120-3 Mechanics and Modern Physics

SUMMER (Standard Schedule)

- ☐ CHEM 121-4 General Chemistry & Lab I
- ☐ PHYS 121-3 Optics, Electricity, and Magnetism
- ☐ MATH 260-3 Intro to Ordinary Differential Equations
- ☐ Complementary Studies (CMPL) Elective I[#]

YEAR 2

TERM 3, FALL

- ☐ ENSC 204-1 Graphical Communication for Engineering
- ☐ ENSC 220-4 Electric Circuits I
- ☐ ENSC 251-4 Software Design and Analysis for Engineers
- ☐ ENSC 252-4 Fundamentals of Digital Logic and Design
- ☐ MATH 251-3 Calculus III

SPRING

CO-OP TERM I

TERM 4, SUMMER

- ☐ ENSC 225-4 Microelectronics I
- ☐ ENSC 254-4 Introduction to Computer Organization
- ☐ ENSC 280-4 Engineering Measurements and Data Analysis
- ☐ ENSC 320-4 Electric Circuits II
- ☐ MATH 254-3 Vector and Complex Analysis for Applied Sciences

YEAR 3

TERM 5, FALL

- ☐ ENSC 324-3 Electronic Devices
- ☐ ENSC 351-4 Embedded and Real Time System Software
- ☐ ENSC 380-3 Linear Systems
- ☐ PHYS 211-3 Intermediate Mechanics
- ☐ PHYS 384-3 Methods of Theoretical Physics I
- ☐ PHYS 344-3 Thermal Physics

TERM 6, SPRING

- ☐ ENSC 325-4 Microelectronics II
- ☐ ENSC 383-4 Feedback Control Systems
- ☐ PHYS 321-3 Intermediate Electricity and Magnetism
- ☐ Engineering Science & Design (ESD) Elective I-4*

SUMMER

CO-OP TERM II

YEAR 4

FALL

CO-OP
TERM III[^]

☐ PHYS 233-2 Physics Laboratory IV

TERM 7, SPRING

- ☐ ECON 103-4 Principles of Microeconomics
- ☐ ENSC 405W-3 Project Documentation, User Interface Design, and Group Dynamics
- ☐ ENSC 410-3 The Business of Engineering
- ☐ ENSC 495-4 Introduction to Microelectronic Fabrication
- ☐ Physics (PHYS) Elective I-3[°]
- ☐ Physics (PHYS) Elective II-3[°]

TERM 8, SUMMER

- ☐ Complementary Studies (CMPL) Elective II[#]
- ☐ ENSC 406-2 Engineering Ethics, Law, and Professional Practice
- ☐ ENSC 440-3 Capstone Engineering Science Project
- ☐ ENSC 470-4 Optical and Laser Engineering Applications
- ☐ ENSC 498-1 Engineering Science Thesis Proposal
- ☐ Engineering Science & Design (ESD) Elective II-4*

YEAR 5

TERM 9, FALL

- ☐ ENSC 499-9 Engineering Science Undergraduate Thesis
- ☐ PHYS 385-3 Quantum Mechanics I
- ☐ PHYS 421-3 Electromagnetic Waves
- ☐ Physics (PHYS) Elective III-3[°]

GPA REQUIREMENTS:

Minimum 3.0 CGPA and UD GPA required for degree
Minimum 3.0 CGPA to remain in this option

Additional Notes

* ESD Electives consist of a minimum of 8 units chosen from the approved list on the back of this planner.

[#] **Complimentary Electives** - At least one CMPL Elective should be a B-Hum, and at least one should be from *Central Issues, Methodology & Thought Process* list: <http://www.sfu.ca/engineering/current-students/undergraduate-students/requirements-and-policies/electives.html>

[°] **PHYS Electives** consist of a minimum of 3 courses. See the PHYS Electives section on the back of this planner.

[^] Please check with your co-op coordinator to confirm that all co-op requirements have been met.

Engineering Science and Design (ESD) Electives:

Students in the Engineering Physics Option must complete **8 units of Engineering Science and Design Electives** from the list below. Students must have the required 300 level prerequisites in order to take these courses. Only one 300 level course from the approved list below can be used to fulfill ESD elective requirements.

- ENSC 327-4 Communication Systems
- ENSC 350-4 Digital Systems Design
- ENSC 424-4 Multimedia Communications Engineering
- ENSC 425-4 Electronic System Design
- ENSC 426-4 High Frequency Electronics
- ENSC 427-4 Communication Networks
- ENSC 428-4 Data Communications
- ENSC 450-4 VLSI Systems Design
- ENSC 452-4 Advanced Digital System Design
- ENSC 474-4 Digital/Medical Image Processing
- ENSC 476-4 Biophotonics and Microscopy Techniques
- ENSC 481-4 Design for Reliability

Unacceptable ESD electives for engineering physics students: ENSC 477-4 Biomedical Image Acquisition

Physics (PHYS) Electives:

In addition to the required physics courses and engineering science and design electives, students must complete **three** physics Electives. At least one physics elective must be at the 400 level.

- PHYS 347-3 Introduction to Biological Physics
- PHYS 390-3 Introduction to Astrophysics
- PHYS 395-3 Computational Physics
- PHYS 413-3 Advanced Mechanics
- PHYS 415-3 Quantum Mechanics II
- PHYS 445-3 Statistical Physics
- PHYS 465-3 Solid State Physics
- PHYS 485-3 Particle Physics
- PHYS 490-3 General Relativity and Gravitation

Policy	Link
GPA Requirements and Co-op	http://www.sfu.ca/engineering/current-students/undergraduate-students/information-for-new-students.html
Residency Requirements	http://www.sfu.ca/students/calendar/faculties-research/faculty-applied-sciences.html
Complementary (CMPL) Electives	http://www.sfu.ca/engineering/current-students/undergraduate-students/requirements-and-policies/electives.html
Prerequisites and Course Descriptions	http://www.sfu.ca/students/calendar/programs/engineering-science-engineering-physics-option/honours/bachelor-of-appliedscience.html
Mandatory Co-op	http://www.sfu.ca/engineering/current-students/undergraduate-students/Co-op-and-work-experience.html
WQB Requirements for Engineering Students	http://www.sfu.ca/engineering/current-students/undergraduate-students/requirements-and-policies/wqb-requirements.html
Duplication/Repeats of Courses	http://www.sfu.ca/engineering/current-students/undergraduate-students/requirements-and-policies/repeat-policy.html
Course Sequencing	http://www.sfu.ca/engineering/current-students/undergraduate-students/course-schedule.html