

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**

<i>TERM 1, FALL</i>	<i>TERM 2, SPRING</i>	<i>SUMMER (Standard schedule)</i>
<input type="checkbox"/> ENSC 151-4 Intro to software development <input type="checkbox"/> ENSC 100W-3 Engineering, Science and Society <input type="checkbox"/> ENSC 105W-3 Process, Form, and Conv. in Prof. Genres <input type="checkbox"/> ENSC 120-2 Intro to Electronics Lab Instruments <input type="checkbox"/> MATH 151-3 Calculus I (or MATH 150-4)	<input type="checkbox"/> ENSC 180-3 Intro to Engineering Analysis <input type="checkbox"/> MATH 152-3 Calculus II <input type="checkbox"/> MATH 232-3 Applied Linear Algebra <input type="checkbox"/> PHYS 120-3 Mechanics and Modern Physics	<input type="checkbox"/> CHEM 121-4 General Chemistry & Lab I <input type="checkbox"/> PHYS 121-3 Optics, Electricity, and Magnetism <input type="checkbox"/> MATH 260-3 Intro to Ordinary Differential Equations <input type="checkbox"/> Complementary Studies (CMPL) Elective I# (B-Hum)

**YEAR 2**

<i>TERM 3, FALL</i>	<i>SPRING</i>	<i>TERM 4, SUMMER</i>
<input type="checkbox"/> ENSC 204-1 Graphical Communication for Engineering <input type="checkbox"/> ENSC 220-4 Electric Circuits I <input type="checkbox"/> ENSC 251-4 Software Design and Analysis for Engineers <input type="checkbox"/> ENSC 252-4 Fundamentals of Digital Logic and Design <input type="checkbox"/> MATH 251-3 Calculus III	CO-OP TERM I	<input type="checkbox"/> ENSC 225-4 Microelectronics I <input type="checkbox"/> ENSC 254-4 Introduction to Computer Organization <input type="checkbox"/> ENSC 280-4 Engineering Measurements and Data Analysis <input type="checkbox"/> ENSC 320-4 Electric Circuits II <input type="checkbox"/> MATH 254-3 Vector and Complex Analysis for Applied Sciences

**YEAR 3**

<i>TERM 5, FALL</i>	<i>TERM 6, SPRING</i>	<i>SUMMER</i>
<input type="checkbox"/> BPK 201-3 Biomechanics <sup>°</sup> <input type="checkbox"/> CHEM 180-3 The Chemistry of Life <input type="checkbox"/> ENSC 316-3 Introduction to Electrodynamics for Engineers <input type="checkbox"/> ENSC 351-4 Embedded and Real Time System Software <input type="checkbox"/> ENSC 380-3 Linear Systems	<input type="checkbox"/> BPK 208-3 Introduction to Physiological Systems <input type="checkbox"/> ENSC 327-4 Communication Systems <input type="checkbox"/> ENSC 383-4 Feedback Control Systems <input type="checkbox"/> ENSC 474-4 Digital/Medical Image Processing <input type="checkbox"/> Engineering Science & Design (ESD) Elective I-4*	CO-OP TERM II

**YEAR 4**

<i>FALL</i>	<i>TERM 7, SPRING</i>	<i>TERM 8, SUMMER</i>
CO-OP TERM III <sup>^</sup>	<input type="checkbox"/> ENSC 405W-3 Project Documentation, User Interface Design, and Group Dynamics <input type="checkbox"/> ENSC 410-3 The Business of Engineering <input type="checkbox"/> ENSC 475-4 Biomedical Instrumentation <input type="checkbox"/> Engineering Science & Design (ESD) Elective II-4*	<input type="checkbox"/> ECON 103-4 Principles of Microeconomics <input type="checkbox"/> ENSC 406-2 Engineering Ethics, Law, and Professional Practice <input type="checkbox"/> ENSC 440-3 Capstone Engineering Science Project <input type="checkbox"/> ENSC 498-1 Engineering Science Thesis Proposal <input type="checkbox"/> ENSC 472-4 Orthopaedic and Rehabilitation Engineering <b>OR</b> <input type="checkbox"/> ENSC 476-4 Biophotonics and Microscopy Techniques

**YEAR 5**

**GPA REQUIREMENTS:**

<i>TERM 9, FALL</i> <input type="checkbox"/> BPK 308-3 Experiments and Models in Systems Physiology <input type="checkbox"/> ENSC 370-3 Biomedical Engineering Directions <input type="checkbox"/> ENSC 477-4 Biomedical Image Acquisition <input type="checkbox"/> ENSC 499-9 Engineering Science Undergraduate Thesis	<input type="checkbox"/> <b>Minimum</b> 3.0 CGPA and UDGPA required for degree <input type="checkbox"/> <b>Minimum</b> 3.0 CGPA to remain in this option
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Additional Notes

\*ESD Electives consist of a minimum of 12 units. See the ESD Electives section on the back of this planner.

<sup>^</sup>Any B-Hum (3 unit) course from the *Central Issues, Methodology, and Thought Process List with Appeal*, see: <https://coursys.sfu.ca/forms/ensc-appeal-form/> **OR**, any B-Hum (3 unit) course if GERO 300 has already been taken.

<sup>°</sup>See **BPK Prerequisites** on back of this planner.

<sup>^</sup>Please check with your co-op coordinator to confirm that all co-op requirements have been met.

## Engineering Science and Design (ESD) Electives:

The Biomedical Engineering option currently recommends completion of GERO 300 (B-Soc/Central Issues course). Students (on the new curriculum) who have **already taken** GERO 300 must take the following courses to meet the complementary elective and breadth requirements: ECON 103 AND any 3 unit course from the SFU approved B-Hum list.

Student (on the new curriculum) who have **NOT yet taken** GERO 300 can appeal to substitute this course for a B-Hum course. Students granted a substitution must take the following courses to meet the complementary elective and breadth requirements: ECON 103 AND any 3 unit B-Hum course that is also on the Central Issues, Methodology and Thought Process list\*

\*This option requires an appeal (<https://coursys.sfu.ca/forms/ensc-appeal-form/>).

In addition, students in the Biomedical Engineering Option must complete **8 units** from the following:

- ENSC 426-4 High Frequency Electronics
- ENSC 427-4 Communication Networks
- ENSC 428-4 Digital Communications
- ENSC 429-4 Digital Signal Processing
- ENSC 470-4 Optical and Laser Engineering Applications
- ENSC 483-4 Modern Control Systems

## BPK Prerequisites:

- Biomed students wanting to enroll in BPK 201 without the prerequisite BPK 142, must email their advising transcript to the following FAS Advisor ([ugadvise@sfu.ca](mailto:ugadvise@sfu.ca)) to request enrollment.

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