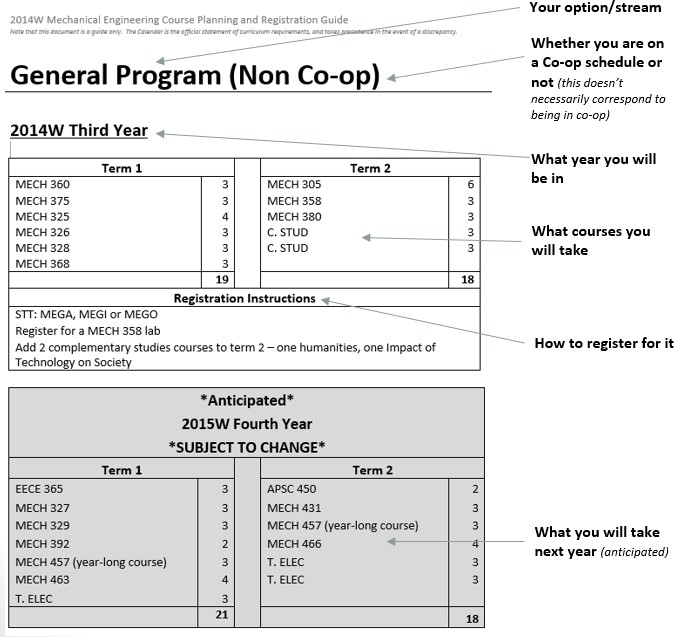


Course Planning and Registration Guide 2021W Version 1.0



**See errata on page 2.**

**Errata**

* Technical Elective lists updated

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# Standard Degree Paths

In mechanical engineering, students are able to stay in the general stream with or without participating in the Co-op program, or choose one of three options with Co-op. The diagram below depicts the many options available.

If you follow one of these options, as outlined in the book, the Mech department will have scheduled the courses in such a way that you will graduate on time, without course conflicts, provided you pass all of your courses. If you go off-cycle, you are responsible for ensuring you have the necessary pre-requisites and you may end up with a course conflict.

First Year



Mech 2

General

Program (Automatic)

Option

Program (Application)

Co-op

Non Co-op

Biomedical

Option (Co-op)

Mechatronics

Option (Co-op)

Thermofluids

Option (Co-op)

# Review your Graduation Requirements – Degree Navigator

The easiest way to review what courses you need to graduate is to log in to Degree Navigator and use the default session selection (directions are at <http://students.engineering.ubc.ca/how-use-degree-navigator>).

If the curriculum you see doesn’t look quite right, please contact [students@mech.ubc.ca](mailto:students@mech.ubc.ca) and we will verify that your default session is correct.

**Once you know what courses you are required to take, it is important to realize you won’t necessarily take them in the order presented in the Calendar.**

Because we can only offer most courses once a year, and due to the complexity of pre-requisites, you usually have to mix up the third and fourth year courses to make

your schedule work. The Department creates recommended course order schedules for the following student streams:

* General stream (Non Co-op)
* General stream with Co-op
* General stream – extended degree
* Biomedical stream with Co-op
* Mechatronics stream with Co-op
* Thermofluids stream with Co-op

**If you deviate from these streams, you are responsible for ensuring you meet pre-requisite requirements, and we can’t guarantee that your courses won’t conflict with each other.**

# Effect of Co-op on Courses – “Co-op” vs. “Non Co-op” Course Orders

You need to arrange your courses in the right order to ensure you meet pre-requisites. If you simply mash third year co-op and third-and-a-half year co-op together, you won’t meet your pre-requisites and you may find yourself unregistered from courses.

**“Co-op” Schedule –** Third year is taken T2 / T1

|  |  |  |
| --- | --- | --- |
| **Term 1** | **Term 2** | **Summer** |
| 2 | 2 | Co-op |
| Co-op | 3 | Co-op |
| 3.5 | Co-op | Co-op |
| 4 | 4 |  |

**“Non Co-op” Schedule –** Third year is taken T1 / T2

|  |  |  |
| --- | --- | --- |
| **Term 1** | **Term 2** | **Summer** |
| 2 | 2 | Off |
| 3 | 3 | Off |
| 4 | 4 |  |

|  |  |  |
| --- | --- | --- |
| **Term 1** | **Term 2** | **Summer** |
| 2 | 2 | Co-op |
| Co-op | Co-op | Co-op |
| 3 | 3 | Co-op |
| 4 | 4 |  |

|  |  |  |
| --- | --- | --- |
| **Term 1** | **Term 2** | **Summer** |
| 2 | 2 | Co-op |
| 3 | 3 | Co-op |
| Co-op | Co-op | Co-op |
| 4 | 4 |  |

**Take the STTs in numeric sequence – you can’t take 3.5 until you have finished 3, and you can only take one STT per year.**

# How to Register for Courses

1. Register online via the SSC.
2. Problems registering? Try the troubleshooting section below.
3. Continued issues with MECH-coded courses? Email [students@mech.ubc.ca](mailto:students@mech.ubc.ca) and request assistance. Don’t forget to include your student number and the other information we need to understand the problem. Please also check the

pre-requisite information on the following page.

1. Continued issues with other courses? Unfortunately, we aren’t able to help with courses outside our jurisdiction. Please talk to the Department offering the course directly (see the back of this booklet), or complete a formal add/drop request (<http://students.engineering.ubc.ca/forms>) and submit it directly to them (or Engineering Student Services for APSC-coded classes).

## Registration Troubleshooting

Before contacting the Mech Student Services Office for assistance, please check that you have:

* Paid your registration deposit
* Ensured that you have met the LPI / English / MECH 226/227 requirements
  + You must complete the LPI prior to promotion to second year, your first year English requirement prior to promotion to third year, and your MECH 226/227 requirement prior to promotion to fourth year.
* Registered in a Standard Time Table (STT)
  + You can’t register in individual courses without registering in a STT first.
  + If your STT is full, pick the next nearest timetable and add/drop from there to match the registration guide.
* Ensured that you do not have any conflicts with other courses
* Tried registering for the course on your own
  + We use “Restricted” seats rather than general seats for our courses, but seeing the word “restricted” does not necessarily mean you can’t take the course. Always attempt to register prior to requesting assistance.

**Due to rules about classroom assignments and minimum course sizes, students are required to complete their registration for both academic terms by August 1st.**

**After August 1st:**

* **Courses with low enrollment may be cancelled;**
* **It may not be possible for us to accommodate registration requests.**

## Enforcement of Pre-Requisites

Pre-requisites based on failures or deficiencies in Mech 2 are strongly enforced to ensure consistency and fairness to all students. Please do not ask for an exception – they were considered very carefully before being put into place.

|  |  |  |
| --- | --- | --- |
| **Mech 2 Pre-requisite Enforcements** | | |
| **Failed or Deficient Subject Area** | **You May Not Take (Enforced Prerequisite)** | **We Recommend Not Taking (Unenforced)** |
| Dynamics | Core: MECH 463, MECH 466  Option/Elective: MECH 366, MECH 435 |  |
| Solid Mech | Core: MECH 305/6, MECH 326, MECH 329, MECH 360, MECH 392, MECH 426,  MECH 463 |  |
| Electrical | Core: MECH 368, MECH 466  Option/Elective: MECH 366 |  |
| Materials | Core: MECH 326, MECH 329, MECH 392  Option/Elective: MECH 366 |  |
| DE Math (MATH 255/258) | Core: MECH 358, MECH 360, MECH 463,  MECH 466.  Option/Elective: MECH 366 | MECH 375 |
| Fluids | Core: MECH 305, MECH 380  Option/Elective: MECH 366, MECH 386,  MECH 433 | MECH 375 |
| Thermo | Core: MECH 305/6, MECH 326, MECH 327, MECH 375, MECH 426 | MECH 366, MECH 380 |
| Vector Calc Math (MATH 253/254) | Core: MECH 358, MECH 463 |  |

For all other pre-requisite issues, you must con tact the instructor of the course (please cc [students@mech.ubc.ca](mailto:students@mech.ubc.ca)). The Professor will consider requests on a case-by-case basis, and may contact you if he or she has questions about your preparation. Once he or she has considered your request, he or she will inform you and the Department via email. If your request is approved, the Department will register you in the course.

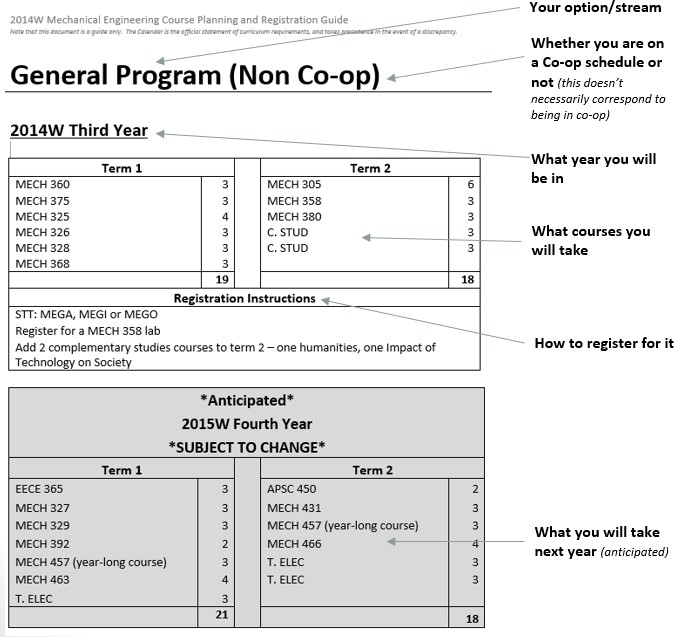
**A professor has no obligation to accept a prerequisite waiver request. There is no appeal against his or her decision.**

You are advised to make requests as early as possible, as it may take a week or more to process your request. You may make requests prior to your registration opening, although you will not be registered until after that date has passed. Please state your registration opening date in your email when making an early request.

# Registration Guides

**How to use these guides:**

Find the correct stream, and the correct year level.



Brief course descriptions are available in the official UBC Calendar. Past syllabi can be found on the Department website.

## Registration Guide Abbreviations

STT – Standard Timetable

C.STUD – Complementary Studies (additional information on page 21) T.ELEC – Technical Elective (additional information on page 25)

**General Program (Non Co-op)**

**2021W Third Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| MECH 360 | 3 | MECH 305 | 6 |
| MECH 375 | 3 | MECH 358 | 3 |
| MECH 325 | 4 | MECH 380 | 3 |
| MECH 328 | 3 | C. STUD | 3 |
| MECH 329 | 3 | C. STUD | 3 |
| MECH 368 | 3 |  |  |
|  | **19** |  | **18** |
| **Registration Instructions** | | | | |
| STT: MEGA, MEGY, or MEGO |  |  |  |  |
| Register in a MECH 358 lab |  |  |  |  |
| Register in term 2 complementary studies courses – one humanities, one Impact of  Technology on Society | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| ELEC 344 | 3 | APSC 450 | 2 |
| MECH 327 | 3 | MECH 431 | 3 |
| MECH 392 | 2 | MECH 457 (year-long course) | 3 |
| MECH 426 | 3 | MECH 466 | 4 |
| MECH 457 (year-long course) | 3 | T. ELEC | 3 |
| MECH 463 | 4 | T. ELEC | 3 |
| T. ELEC | 3 |  |  |
|  | **21** |  | **18** |

**General Program (Non Co-op)**

**2021W Fourth Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| ELEC 344 | 3 | APSC 450 | 2 |
| MECH 327 | 3 | MECH 431 | 3 |
| MECH 392 | 2 | MECH 457 (year-long course) | 3 |
| MECH 426 | 3 | MECH 466 | 4 |
| MECH 457 (year-long course) | 3 | T. ELEC | 3 |
| MECH 463 | 4 | T. ELEC | 3 |
| T. ELEC | 3 |  |  |
|  | **21** |  | **18** |
| **Registration Instructions** | | | | |
| STT: MERI |  |  |  |  |
| Register in an ELEC 344 lab and tutorial  Register in a MECH 466 lab | | | | |
| Register in one Technical Elective in Term 1 and 2 Technical Electives in Term 2 | | | | |

**General Program (Non Co-op) Extended**

**2021W Third Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| MECH 360 | 3 | MECH 305 | 6 |
| MECH 325 | 4 | MECH 358 | 3 |
| MECH 328 | 3 | MECH 380 | 3 |
| MECH 329 | 3 | MECH 375 | 3 |
| MECH 368 | 3 |  |  |
|  | **16** |  | **15** |
| **Registration Instructions** | | | | |
| STT: MEGA, MEGY, or MEGO |  |  |  |  |
| Switch MECH 375 from T1 to T2 |  |  |  |  |
| Register in a MECH 358 lab |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| ELEC 344 | 3 | APSC 450 | 2 |
| MECH 327 | 3 | MECH 431 | 3 |
| MECH 426 | 3 | MECH 457 (year-long course) | 3 |
| MECH 457 (year-long course) | 3 | MECH 466 | 4 |
| MECH 463 | 4 | T. ELEC | 3 |
|  | **16** |  | **15** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2023W Extension Term** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| MECH 392 | 2 |  |  |
| T. ELEC | 3 |
| T. ELEC | 3 |
| C. STUD | 3 |
| C. STUD | 3 |
|  | **14** |  |  |

**General Program (Non Co-op) Extended**

**2021W Fourth Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| ELEC 344 | 3 | APSC 450 | 2 |
| MECH 327 | 3 | MECH 431 | 3 |
| MECH 426 | 3 | MECH 457 (year-long course) | 3 |
| MECH 457 (year-long course) | 3 | MECH 466 | 4 |
| MECH 463 | 4 | T. ELEC | 3 |
|  | **16** |  |  | **15** |
| **Registration Instructions** | | | | |
| STT: MERI |  |  |  |  |
| Drop MECH 392 |  |  |  |  |
| Register in an ELEC 344 lab and tutorial  Register in a MECH 466 lab | | | | |
| Register in one Technical Elective in term 2 | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Extension Term** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| MECH 392 | 2 |  |  |
| T. ELEC | 3 |
| T. ELEC | 3 |
| C. STUD | 3 |
| C. STUD | 3 |
|  | **14** |  |  |

**General Program with Co-op**

**2021W Third Year**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** |  | **Term 2** | |
| Co-op | MECH 305 | 6 |
| MECH 358 | 3 |
| MECH 360 | 3 |
| MECH 375 | 3 |
| MECH 380 | 3 |
|  | **18** |
| **Registration Instructions** | | | |
| STT: MEGU |  |  |  |
| Register in a MECH 358 lab |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **\*Anticipated\*** | | | |
| **2022W Third and a Half Year** | | | |
| **\*SUBJECT TO CHANGE\*** | | | |
| **Term 1** | |  | **Term 2** |
| MECH 325 | 4 | Co-op |
| MECH 327 | 3 |
| MECH 328 | 3 |
| MECH 329 | 3 |
| MECH 368 | 3 |
| MECH 392 | 2 |
|  | **18** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2023W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| APSC 450 | 2 | MECH 431 | 3 |
| MECH 426 | 3 | MECH 457 (year-long course) | 3 |
| MECH 457 (year-long course) | 3 | MECH 466 | 4 |
| MECH 463 | 4 | T. ELEC | 3 |
| ELEC 344 | 3 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
| T. ELEC | 3 |  |  |
|  | **21** |  | **19** |

**General Program with Co-op**

**2021W Third and a Half Year**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** |
| MECH 325 | 4 | Co-op |
| MECH 327 | 3 |
| MECH 328 | 3 |
| MECH 329 | 3 |
| MECH 368 | 3 |
| MECH 392 | 2 |
|  | **18** |
| **Registration Instructions** | | | |
| STT: Choose MEND, MENO, or MENT | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| APSC 450 | 2 | MECH 431 | 3 |
| MECH 457 (year-long course) | 3 | MECH 457 (year-long course) | 3 |
| MECH 426 | 3 | MECH 466 | 4 |
| MECH 463 | 4 | T. ELEC | 3 |
| ELEC 344 | 3 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
| T. ELEC | 3 |  |  |
|  | **21** |  | **19** |

**General Program with Co-op**

**2021W Fourth Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| APSC 450 | 2 | MECH 431 | 3 |
| MECH 457 (year-long course) | 3 | MECH 457 (year-long course) | 3 |
| MECH 426 | 3 | MECH 466 | 4 |
| MECH 463 | 4 | T. ELEC | 3 |
| ELEC 344 | 3 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
| T. ELEC | 3 |  |  |
|  | **21** |  | **19** |
| **Registration Instructions** | | | | |
| STT: MERU |  |  |  |  |
| Register for a MECH 466 lab |  |  |  |  |
| Register for a ELEC 344 lab and tutorial | | | | |
| Register in three Technical Electives | | | | |
| Register in two complimentary studies courses - one Impact of Technology on Society  course and one Humanities course. | | | | |

**Biomedical Option**

**2021W Third Year (with Co-op)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** |  | **Term 2** | |  |
| Co-op | MECH 305 | 6 |
| MECH 360 | 3 |
| MECH 358 | 3 |
| MECH 375 | 3 |
| MECH 380 | 3 |
|  | **18** |
| **Registration Instructions** | | | |
| STT: MEGS |  |  |  |
| Register in a MECH 358 lab |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **\*Anticipated\*** | | | |
| **2022W Third and a Half Year** | | | |
| **\*SUBJECT TO CHANGE\*** | | | |
| **Term 1** | |  | **Term 2** |
| BMEG 410 | 3 | Co-op |
| MECH 325 | 4 |
| MECH 328 | 3 |
| MECH 368 | 3 |
| MECH 463 | 4 |
| C. STUD | 3 |
|  | **20** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2023W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| APSC 450 | 2 | MECH 431 | 3 |
| MECH 426 | 3 | MECH 439 | 1 |
| BMEG 456 | 3 | MECH 459 (year-long course) | 3 |
| MECH 459 (year-long course) | 3 | MECH 466 | 4 |
| ELEC 344 | 3 | MTRL 495 | 3 |
| T. ELEC | 3 | T. ELEC | 3 |
| T. ELEC | 3 | C. STUD | 3 |
|  | **20** |  | **20** |

**Biomedical Option**

**2021W Third and a Half Year (with Co-op)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** |
| BMEG 410 | 3 | Co-op |
| MECH 325 | 4 |
| MECH 328 | 3 |
| MECH 368 | 3 |
| MECH 463 | 4 |
| C. STUD | 3 |
|  | **20** |
| **Registration Instructions** | | | |
| STT: MELS |  |  |  |
| Register in a Complimentary Studies humanities elective | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2021W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| MECH 426 | 3 | MECH 431 | 3 |
| APSC 450 | 2 | MECH 439 | 1 |
| BMEG 456 | 3 | MECH 459 (year-long course) | 3 |
| MECH 459 (year-long course) | 3 | MECH 466 | 4 |
| ELEC 344 | 3 | MTRL 495 | 3 |
| T. ELEC | 3 | T. ELEC | 3 |
| T. ELEC | 3 | C. STUD | 3 |
|  | **20** |  |  | **20** |

**Biomedical Option**

**2021W Fourth Year (with Co-op)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| MECH 426 | 3 | MECH 431 | 3 |
| APSC 450 | 2 | MECH 439 | 1 |
| BMEG 456 | 3 | MECH 459 (year-long course) | 3 |
| MECH 459 (year-long course) | 3 | MECH 466 | 4 |
| ELEC 344 | 3 | MTRL 495 | 3 |
| T. ELEC | 3 | T. ELEC | 3 |
| T. ELEC | 3 | C. STUD | 3 |
|  | **20** |  | **20** |
| **Registration Instructions** | | | | |
| STT: METO |  |  |  |  |
| Register in a ELEC 344 lab and tutorial | | | | |
| Register in a MECH 466 lab |  |  |  |  |
| Register in three Technical Electives | | | | |
| Register in two complimentary studies courses - one Impact of Technology on Society  course and one Humanities course. | | | | |

**Mechatronics Option**

**2021W Third Year (with Co-op)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** |  | **Term 2** | |
| Co-op | CPEN 312 | 3 |
| ELEC 302 | 3 |
| ELEC 343 | 3 |
| MECH 306 | 4 |
| MECH 360 | 3 |
| MECH 375 | 3 |
|  | **19** |
| **Registration Instructions** | | | |
| STT: Choose MEMO or MEMT | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **\*Anticipated\*** | | | |
| **2022W Third and a Half Year** | | | |
| **\*SUBJECT TO CHANGE\*** | | | |
| **Term 1** | |  | Term 2 |
| CPSC 259 | 4 | Co-op |
| MECH 325 | 4 |
| MECH 328 | 3 |
| MECH 366 | 3 |
| MECH 463 | 4 |
| MECH 392 | 2 |
|  | **20** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2023W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| CPEN 333 | 3 | APSC 450 | 2 |
| MECH 420 | 3 | MECH 421 | 4 |
| MECH 423 | 4 | MECH 431 | 3 |
| MECH 458 (year-long course) | 3 | MECH 458 (year-long course) | 3 |
| MECH 467 | 4 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
|  | **20** |  | **18** |

**Mechatronics Option**

**2021W Third and a Half Year (with Co-op)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** |
| CPSC 259 | 4 | Co-op |
| MECH 325 | 4 |
| MECH 328 | 3 |
| MECH 366 | 3 |
| MECH 463 | 4 |
| MECH 392 | 2 |
|  | **20** |
| **Registration Instructions** | | | |
| STT: Choose MEPA or MEPO | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| CPEN 333 | 3 | APSC 450 | 2 |
| MECH 420 | 3 | MECH 421 | 4 |
| MECH 423 | 4 | MECH 431 | 3 |
| MECH 458 (year-long course) | 3 | MECH 458 (year-long course) | 3 |
| MECH 467 | 4 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
|  | **20** |  | **18** |

**Mechatronics Option**

**2021W Fourth Year (with Co-op)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| CPEN 333 | 3 | APSC 450 | 2 |
| MECH 420 | 3 | MECH 421 | 4 |
| MECH 423 | 4 | MECH 431 | 3 |
| MECH 458 (year-long course) | 3 | MECH 458 (year-long course) | 3 |
| MECH 467 | 4 | T. ELEC | 3 |
| C. STUD | 3 | C. STUD | 3 |
|  | **20** |  | **18** |
| **Registration Instructions** | | | | |
| STT: MESH |  |  |  |  |
| Register in a MECH 420 lab |  |  |  |  |
| Register in a MECH 421 lab |  |  |  |  |
| Register in one Technical Elective | | | | |
| Register in one Impact of Technology on Society course and one Humanities course. | | | | |

**Thermofluids Option**

**2021W Third Year (with Co-op)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** |  | **Term 2** | |
| Co-op | MECH 305 | 6 |
| MECH 358 | 3 |
| MECH 360 | 3 |
| MECH 375 | 3 |
| MECH 380 | 3 |
|  | **18** |
| **Registration Instructions** | | | |
| STT: MEGS |  |  |  |
| Register in a MECH 358 lab |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **\*Anticipated\*** | | | |
| **2022W Third and a Half Year** | | | |
| **\*SUBJECT TO CHANGE\*** | | | |
| **Term 1** | |  | **Term 2** |
| MECH 325 | 4 | Co-op |
| MECH 327 | 3 |
| MECH 328 | 3 |
| MECH 386 | 3 |
| C. STUD | 3 |
| C. STUD | 3 |
|  | **19** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| MECH 454 (year-long course) | 3 | APSC 450 | 2 |
| MECH 463 | 4 | MECH 431 | 3 |
| MECH 479 | 3 | MECH 454 (year-long course) | 3 |
| ELEC 344 | 3 | MECH 466 | 4 |
| T. ELEC | 3 | MECH 489 | 4 |
| T. ELEC | 3 | T. ELEC | 3 |
|  | **19** |  | **19** |

**Thermofluids Option**

**2021W Third and a Half Year (with Co-op)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** |
| MECH 325 | 4 | Co-op |
| MECH 327 | 3 |
| MECH 328 | 3 |
| MECH 386 | 3 |
| C. STUD | 3 |
| C. STUD | 3 |
|  | **19** |
| **Registration Instructions** | | | |
| STT: MEPI |  |  |  |
| Register in one Impact of Technology on Society course and one Humanities  course | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\*Anticipated\*** | | | | |
| **2022W Fourth Year** | | | | |
| **\*SUBJECT TO CHANGE\*** | | | | |
| **Term 1** | |  | **Term 2** | |
| MECH 454 (year-long course) | 3 | APSC 450 | 2 |
| MECH 463 | 4 | MECH 431 | 3 |
| MECH 479 | 3 | MECH 454 (year-long course) | 3 |
| ELEC 344 | 3 | MECH 466 | 4 |
| T. ELEC | 3 | MECH 489 | 4 |
| T. ELEC | 3 | T. ELEC | 3 |
|  | **19** |  | **19** |

**Thermofluids Option**

**2021W Fourth Year (with Co-op)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term 1** | |  | **Term 2** | |
| MECH 454 (year-long course) | 3 | APSC 450 | 2 |
| MECH 463 | 4 | MECH 431 | 3 |
| MECH 479 | 3 | MECH 454 (year-long course) | 3 |
| ELEC 344 | 3 | MECH 466 | 4 |
| T. ELEC | 3 | MECH 489 | 4 |
| T. ELEC | 3 | T. ELEC | 3 |
|  | **19** |  | **19** |
| **Registration Instructions** | | | | |
| STT: META |  |  |  |  |
| Register in an ELEC 344 lab and tutorial | | | | |
| Register in a MECH 466 lab |  |  |  |  |
| Register in three Technical Electives | | | | |

**Electives**

The following sections provide information on complementary studies electives, technical electives, and electives for specialized options.

**Complementary Studies Elective Requirements** *Note: Complementary studies requirements are governed by Engineering Student Services. This page is for your general information, and to help you interpret the Calendar listing* [*(*http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,30](http://www.students.ubc.ca/calendar/index.cfm?tree=12%2C195%2C272%2C30)*). In case of discrepancies, the Calendar listing takes precedence.*

Students require a total of 20 complementary credits to graduate. Three courses (8 credits) are already in your core curriculum (MECH 226/227, APSC 450, and MECH 431). The remaining 12 credits are taken as follows:

1. APSC 176, ENGL 112, or another first-year English course (typ. taken in first year).
2. **An Impact of Technology on Society course.** Acceptable courses can be found on the following link: <http://students.engineering.ubc.ca/degree-requirements> Note that not all courses are offered all years, and we have no control over what courses will be offered. Students may seek approval from the Engineering Student Services Office for other courses that address the impact of technology on society as the central course theme.
3. A humanities or social sciences elective (typically taken in first year). This elective must deal with central issues, methodologies, and thought processes of the humanities and social sciences. Most courses from the Faculty of Arts are acceptable apart from courses that are scientific or performance based (ex. dramatic arts). Some other exceptions include ARCL 140, CLST 301, PHIL 125, PHIL 220 and PSYC 218. To ensure a course is eligible, please consult ESS. Courses that teach language skills are also not accepted UNLESS your Impact of Technology on Society course is from the Faculty of Arts.
4. **A second humanities or social sciences elective** OR a language skills course. If you took a six credit Impact of Technology on Society or humanities course, you do not need to take this fourth course.

**Most students need one impact of technology course and one humanities or language elective to complete their requirements. Everyone needs at least 20 total credits.**

## Examples of Fulfilling Complementary Studies Elective Requirements

Below are examples of ways to meet your requirements.

**Example 1:** You took APSC 176 in first year, which satisfied your English requirement (#1). You have selected APSC 261 as your Impact of Technology on Society course (#2). APSC 261 is not in the Faculty of Arts, so you must take a humanities course that is NOT a language for requirement #3 (eg, PHIL 101, ECON 101, or an English literature class (eg, ENGL 110)). To satisfy requirement #4, you may choose either another humanities course, or you may select a language skills course (eg, FREN 101).

**Example 2:** You took ENGL 112 in first year, which satisfied your English requirement (#1). You also choose to take PHIL 435A as an Impact of Technology on Society course (#2), which is in the Faculty of Arts. You may take all six of your credits from #3 and #4 from any combination of humanities and language courses.

**FAQ**

1. **Do ECON courses count towards my humanities requirement?**

**Yes.** ECON courses may be used towards requirements #3 and #4. Note that ECON 310 and 311 (or 101 and 102) are part of the Minor in Commerce, so students interested in the Minor may wish to select those courses.

1. **Do COMM courses count towards my humanities requirement?**

**No**. COMM courses are not in the Faculty of Arts and are considered technical in nature. In some circumstances, however, one COMM course may be used as an Outside Technical Elective (see section 7) towards your technical elective requirements. *Please note that only three credits of Outside Technical Electives may be used towards your degree requirements.*

**Examples of Humanities Courses**

The examples below are not an exhaustive list – just some common choices:

* ECON 310, 311
* ANTH 100, 103
* ENGL 110
* HIST 104, 105
* LASO 204
* LING 100, 101
* PHIL 101, 102
* POLI 100, 101
* PSYC 101, 102, 208

**Technical Elective Requirements**

The number of required technical electives varies among the four different mechanical engineering streams. The requirements for each stream are provided below.

### *General Program requirements*

|  |  |  |  |
| --- | --- | --- | --- |
| Started  MECH 2 | **Total**  **Credits** | General A | General A or B or  Outside Technical Elective |
| 2010W or later | **9** | 6 | 3 |

### *Biomedical Option requirements*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Started MECH 2 | **Total Credits** | Biomedical A | Biomedical A or B | Biomedical A or B, or General A or B, or Outside Technical Elective |
| 2010W or later | **9** | 3 | 3 | 3 |

### *Mechatronics Option requirements*

|  |  |  |
| --- | --- | --- |
| Started 4th year | **Total**  **Credits** | Mechatronics |
| 2016W – 2017W | **6** | 6 |
| 2018W or later | **3** | 3 |

### *Thermofluids Option requirements*

|  |  |  |  |
| --- | --- | --- | --- |
| Started MECH 2 | **Total**  **Credits** | Thermofluids A | General A or B, or  Outside Technical Elective |
| 2010W or later | **9** | 6 | 3 |

***Camosun Bridge requirements***

Students transferring from the Camosun Bridge Program must meet the above credit requirements, **but cannot receive credit toward their degree for non-engineering science courses.**

Specifically, **students cannot use the following courses** towards their technical elective requirements:

* APSC 440, APSC 461, MATH 300, MATH 400, MECH 496, any COMM courses

All Camosun Bridge students must choose their technical electives from those checked off under the Camosun column on the technical elective table. Students wishing to take courses not included in this column must receive express written permission from the Associate Head for Teaching. Such permission will only be granted for engineering science courses. Should students have any questions, please consult the Mech Student Services office.

## Outside Technical Elective Regulations

*\*Note: This option does not apply to Camosun Bridge students*

An outside course is any course not on the applicable technical elective list. Students are occasionally granted special permission to take an outside course as a technical elective. Such courses should be 300-level or higher, from the Faculty of Applied Science, Science or Commerce, and of relevance to Mechanical Engineering.

Only three credits of outside technical electives can be used towards your degree, unless specific permission for specific courses is granted by the appropriate advisor, and that permission is recorded in your Degree Navigator report.

To obtain credit for an outside course, you must email [students@mech.ubc.ca](mailto:students@mech.ubc.ca) with the following information:

* Your name, student number
* The course number, title and Calendar description
* The course syllabus (either a link to an online version, or a .txt, .rtf, .doc or .pdf attachment)
* Confirmation that the course will not conflict with any other courses you are taking
* A list of any other outside electives you have taken, are taking or are hoping to take
* The reason(s) you would like to take the course

MECH Student Services will forward your request to the appropriate advisor. If your advisor gives approval we will inform you and update your Degree Navigator report.

**FAQ: How do we pick which technical electives are offered?**

We decide which technical electives to offer in a given year based on three factors:

1. The general level of interest of students as determined by the third year student survey;
2. The availability of a professor or person from industry with the appropriate background;
3. Historical registration levels.

In addition, many of the courses are offered every year because they are required for an Option.

**2021S Technical Elective List**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Description** | **General A** | **General B** | **Biomedical A** | **Biomedical B** | **Thermofluids A** | **Mechatronics** | **Camosun** |
| APSC 461 | Global Engineering Leadership | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |

**2021W Term 1 Technical Elective List**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Description** | **General A** | **General B** | **Biomedical A** | **Biomedical B** | **Thermofluids A** | **Mechatronics** | **Camosun** |
| MECH 386 | Industrial Fluid Mechanics | **ˇ** | **ˇ** |  |  | N/A Core | **ˇ** | **ˇ** |
| MECH 410D | Special Topics: Engineering Dynamics | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 435 | Orthopaedic Biomechanics | **ˇ** | **ˇ** | **ˇ** | **ˇ** |  | **ˇ** | **ˇ** |
| MECH 436 | Fundamentals of Injury Biomechanics | **ˇ** | **ˇ** | **ˇ** | **ˇ** |  | **ˇ** | **ˇ** |
| MECH 460 | Advanced Mechanics of Materials | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 470 | Energy Conversion Systems | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 473 | Heating, Ventilation and Air Conditioning | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 477 | Aerospace Propulsion | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 479 | Computational Fluid Dynamics | **ˇ** | **ˇ** |  |  | N/A Core | **ˇ** | **ˇ** |
| MECH 481 | Aerodynamics of Aircraft I | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 485 | Aircraft Design: Structures | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 488 | Introduction to Ship Hydrodynamics | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 491 | Computer-Aided Manufacturing | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 410 C/F | Undergraduate Research I/II (Term 1/2) | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MECH 493 | Introduction to Academic Research (Term 1-2) | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MECH 502 | Fluid Mechanics | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |

**The lists below and to the left represent our best guess at what may be offered this year – read the titles carefully. Please register by August 1 or classes with low registration may be canceled. The courses on the SSC will represent the most up-to-date course listing.**

**See page 25 for how many electives you need from each column. Availability of electives is subject to securing a qualified instructor.**

**2021W Term 2 Technical Elective List**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Description** | **General A** | **General B** | **Biomedical A** | **Biomedical B** | **Thermofluids A** | **Mechatronics** | **Camosun** |
| MECH 410A | Pulp & Paper Technology | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 410K | Special Topics in Mechanical Engineering -  ADV MECHATRONICS | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 410I | Special Topics in Thermal Radiation | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 433 | Biofluids | **ˇ** | **ˇ** | **ˇ** | **ˇ** | **ˇ** | **ˇ** | **ˇ** |
| MECH 445 | Fuel Cell Systems | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 462 | Finite Element Analysis | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 464 | Industrial Robotics | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 468 | Modern Control Engineering | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 469 | Dynamic System Modeling | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 478 | Internal Combustion Engines | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 484 | Aircraft Design: Aerodynamics | **ˇ** | **ˇ** |  |  | **ˇ** | **ˇ** | **ˇ** |
| MECH 489 | Experimental Thermofluids | **ˇ** | **ˇ** |  |  | N/A Core | **ˇ** | **ˇ** |
| MECH 410 C/F | Undergraduate Research I/II (Term 1/2) | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MECH 493 (T1-T2) | Introduction to Academic Research | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MECH 495 | Industrial Engineering | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MECH 496 | Engineering Management | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |

These tables cover the Technical Electives we anticipate offering for 2021W, and are subject to change based on the availability of professors and other factors. Different courses that qualify as technical electives may be offered in different years. Any course that appears on the approved list in the year it was taken will count.

* Note that any course that is core for your program cannot be double-counted as a technical elective.

## May or May not be Offered in Either Term – Outside Electives

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Description** | **General A** | **General B** | **Biomedical A** | **Biomedical B** | **Thermofluids A** | **Mechatronics** | **Camosun** |
| APSC 440 | New Product Development | **ˇ** | **ˇ** |  |  |  |  |  |
| BIOC 300 | Principles of Biochemistry |  | **ˇ** |  |  |  |  |  |
| BIOC 301 | Biochemistry Laboratory |  | **ˇ** |  |  |  |  |  |
| BIOC 302 | General Biochemistry |  | **ˇ** |  |  |  |  |  |
| CEEN 501 | Thermal Energy Systems |  |  |  |  | **ˇ** |  | **ˇ** |
| CHBE 355 | Kinetics and Reactor Design |  |  |  |  | **ˇ** |  | **ˇ** |
| CHBE 477 | Fuel Cell and Electrochemical Engineering |  |  |  |  | **ˇ** |  | **ˇ** |
| CHBE 483 | Energy Engineering |  |  |  |  | **ˇ** |  | **ˇ** |
| CHBE 484 | Green Engineering Principles and  Applications for Process Industries |  |  |  |  | **ˇ** |  | **ˇ** |
| CHBE 485 | Air Pollution Prevention and Control |  |  |  |  | **ˇ** |  | **ˇ** |
| COMR 329 | Principles of Organizational Behavior |  | **ˇ** |  |  |  | **ˇ** |  |
| COMR 457 | Fundamentals of Financial Accounting |  | **ˇ** |  |  |  | **ˇ** |  |
| COMR 458 | Fundamentals of Managerial Accounting |  | **ˇ** |  |  |  | **ˇ** |  |
| COMR 465 | Marketing Management |  | **ˇ** |  |  |  | **ˇ** |  |
| COMR 473 | Business Finance |  | **ˇ** |  |  |  | **ˇ** |  |
| IGEN 450 | Pipeline Engineering I | **ˇ** | **ˇ** |  |  |  |  | **ˇ** |
| IGEN 451 | Pipeline Engineering II | **ˇ** | **ˇ** |  |  |  |  | **ˇ** |
| IGEN 452 | Pipeline Design | **ˇ** | **ˇ** |  |  |  |  | **ˇ** |
| IGEN 453 | Pipelines, Society and the Environment |  | **ˇ** |  |  |  |  | **ˇ** |
| MATH 300 | Introduction to Complex Variables | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MATH 400 | Applied Partial Differential Equations | **ˇ** | **ˇ** |  |  |  | **ˇ** |  |
| MINE 482 | Maintenance Engineering | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |
| MTRL 494 | Composite Materials | **ˇ** | **ˇ** |  |  |  | **ˇ** | **ˇ** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Number** | **Description** | **General A** | **General B** | **Biomedical A** | **Biomedical B** | **Thermofluids A** | **Mechatronics** | **Camosun** |
| MTRL 495 | Biomaterials | **ˇ** | **ˇ** | N/A Core | N/A Core |  | **ˇ** | **ˇ** |
| MTRL 496 | Biomimetic Materials Processing |  |  |  | **ˇ** |  |  | **ˇ** |
| PHYS 404 | Introduction to Medical Physics |  |  |  | **ˇ** |  |  |  |
| PHYS 405 | Radiation Biophysics |  |  |  | **ˇ** |  |  |  |
| PHYS 438 | Zoological Physics |  |  |  | **ˇ** |  |  |  |

Many of these non-MECH courses may not be offered each year and may have prerequisite requirements that you do not meet - contact the course instructor to see if your preparation is appropriate. Although Mech approves these towards you degree requirements, there is no requirement on the departments offering the course to make space available in it.

Note that courses may not be “double counted” in meeting these requirements, particularly for those pursuing a Minor in Honours Mathematics.

**APSC 486: New Venture Design**

APSC 486 is an interdisciplinary (Engineering – Commerce) project course that has the primary goal of providing students of both faculties with knowledge and practical experience related to the formation of an entrepreneurial enterprise based on the development of a new product or process.

APSC 486 may be taken as a technical elective with the following provisions:

* + General students may use it to cover 3 credits of General A and 3 Credits of General B technical elective
  + Biomedical and Thermofluids option students may use it to cover 3 credits of General B technical elective. The remaining 3 credits will not be used towards your degree.
  + Mechatronics students may use it to cover their technical elective requirements. The remaining 3 credits will not be used towards your degree.

Students are now eligible to combine APSC 486 and MECH 45X (Capstone Design Project) by using the same project as the basis for both courses. By doing this, your total credit load for the combined courses (APSC 486 + APSC 496A) will be 9 credits (you will receive 6 credits towards the MECH 45X requirement and 3 as a General B technical elective). MECH students who enroll in both courses for a total of 9 credits will be co-supervised both by APSC 486 instructors and one of the MECH 45X instructors. The project will primarily follow the APSC 486 curriculum, but students will also work out a plan with their MECH 45X instructor to satisfy some of the key design requirements of MECH 45X. Students are expected to attend all MECH 45X classroom and presentation sessions. For more details, please see <http://design.engineering.ubc.ca/design-courses/new-venture-design/>

**Reasons to Consider a Lighter Course Load, and How to Schedule It**

*A Message from Dr. Schajer:*

**When and Why You Should Plan a Lighter Course Load**

It's true - engineering studies are demanding and time-intensive. The onward flow of coursework can seem relentless and never-ending. It then becomes easy to slip into "survival mode," where learning takes a back seat and one's only interest is to make it through alive to the end of term. Clearly, this approach is neither an effective way to get a good education, nor to maintain your mental and physical health.

Like other students, your wish is to have a constructive and happy university experience. You would like to be able to look back at your time at UBC with satisfaction and fond feeling. Certainly, you don't want to remember it as a place of mental stress and extended sleep deprivation.

If your studies are getting a bit stressful, you should consider extending your study time by one or two terms. You will be in good company; about one third of Mech students extend their studies beyond the nominal four- year timeframe. If you already have one or more failed or marginal courses, don't just consider a study time extension, firmly decide on it. Failed courses have a tendency to snowball when a repeated course is added to an already full subsequent term.

Extending your study time enables you can break out of this vicious cycle. You can escape from "survival mode" and actually start to enjoy your studies and get a deeper personal development from them. And don't be afraid to spend the extra time. After graduation, you will have 30-40 years of working life ahead of you, and a reduction by half a year will not hurt your career at all. To the contrary, having a more effective and happier education will significantly raise the quality of both your work and home life.

**How You Plan a Lighter Course Load**

You do not need special permission to extend your study time. If you wish, you may find it helpful to discuss your thoughts with an Undergraduate Adviser. Mech 2 has a fixed timetable arrangement, so the most convenient time to start extending your studies is at the start of Year 3. During the prior summer, plan all five of your remaining terms in detail. Rearrange your courses from four terms of 6 courses each to five terms of 5 courses each. Pay attention to prerequisites and which courses need remain grouped together.

Please see the section [*Practical advice for planning a lighter course load*](http://www.mech.ubc.ca/undergraduate/current/lighterloads.shtml#practical) below for a list of considerations you should take into account while planning your remaining terms.

The most important thing to note is that YOU are responsible for controlling your timetable. You want to be sure that you have all your course requirements covered, and that all courses will fit into your timetables. You do not want to face the unhappy possibility of reaching your last term and finding out that you will have to remain an extra year just to make up one loose missing course.

Extension by one term gives you an extra summer for an additional period of work experience or for travel. You may choose to extend this time by a further four months and use Term 2 as your "extra" term. This would be a good choice if you have an alternative use for the Term 1 time and there are Term 2 Technical Elective courses that you would like to take.

Good luck with your studies. May they provide a strong foundation for your future endeavors, and be a source of satisfaction and happy memories.

*Dr. Gary Schajer*

**Practical Advice for Planning a Lighter Course Load**

Mechanical Engineering at UBC is a very demanding program, and for some students the workload is overwhelming. A potential solution to this is planning a lighter course load, and completing your degree in five years rather than four. If you are thinking of doing so, here are some things to consider:

* 1. For the most part, individual courses are offered in either Term 1 or Term 2. Check the current year's course offerings -- if a core course is in one term this year, it will only ever be offered in that term unless curriculum changes are made. This does not hold true for electives.
  2. **If you are trying to lighten a term, always remove the complementary studies or technical elective courses first.** You are far more likely to have scheduling issues when you move core courses, and technical electives are the most useful when taken towards the end of your degree.
  3. Never, ever drop MECH 360. It's the prerequisite for everything. (Okay, not really – but close. Take it at your first opportunity).
  4. If you are a Co-op student, try to avoid removing courses from your first academic term back from coop in third year (i.e. avoid moving the courses MECH 305, MECH 360, MECH 358, MECH 375, and MECH 380 that begin in January). If you need to lighten this term, speak to an advisor first.
  5. If you are a general stream Co-op student, move either MECH 368 or MECH 392 to your extra term if you wish to lighten your second term of third year.
  6. Make sure you complete Mech 328 before your fourth year, and recall that 454/7/8/9 are full- year project courses (i.e. you must be in school Sept-April).
  7. Watch out for prerequisites and corequisites (check the Calendar). In particular:
     + The third year design courses: 360 is a corequisite for 325 & 426
     + MECH 466 should be taken later in your degree as MECH 463 is its prerequisite.
     + MECH 305 is the lab for MECH 360, 375, and 380. Although they are not official prerequisites, they are very helpful for MECH 305.
  8. Make sure you check your plan against any minimum credit load requirements you are subject to (student loans, scholarship eligibility (typ. 27 credits), housing, medical insurance, etc.).
  9. If you are on co-op, ensure your new schedule will meet the Co-op regulations. Talk to a Co-op advisor if you have questions.

Plot your courses out ahead of time, keeping the above in mind. Remember that even if courses will be offered, there is no guarantee that they won't conflict with each other. **Course times will vary from year to year, and the Faculty of Applied Science does not allow course conflicts.**

Courses that would be taken at the same time by a major "stream" of students (eg, each STT) won't conflict, so try to group your courses so they more or less confirm to a standard stream.

After you do your own research, book an appointment with MECH advisor (see the back of this book) to review it. If you are on Co-op, you should also consult with a co-op coordinator.

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**First Year Advising and Registration External to Mechanical**

*First year curriculum, transfer credits, Complementary Studies courses*

Engineering Acadmeic Services KAIS 1100

604-822-6556

Via the “Contact Us” on [https://academicservices.engineering.ubc.ca/academic-](https://academicservices.engineering.ubc.ca/academic-advising/contact-us/) [advising/contact-us/](https://academicservices.engineering.ubc.ca/academic-advising/contact-us/)

Book an appointment time in person or via phone.

*ELEC courses*

Please submit a request here: <https://ubc.ca1.qualtrics.com/jfe/form/SV_8ctQzXHSpEed63r>

*MATH courses*

Math asks that you continue to try registering online, or email [ugradchair@math.ubc.ca](mailto:ugradchair@math.ubc.ca).

*CIVL courses*

Complete the online course registration form: <https://www.civil.ubc.ca/webform/course-request-registration-form>

*Other out-of-department courses*

Contact the Department offering the course for instructions.

# People Here to Help

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Antony Hodgson [ahodgson@mech.ubc.ca](mailto:ahodgson@mech.ubc.ca) | Yusuf Altintas [altintas@mech.ubc.ca](mailto:altintas@mech.ubc.ca) |  | Ian Frigaard [frigaard@math.ubc.ca](mailto:frigaard@math.ubc.ca) | Heather Gerrits [heather@mech.ubc.ca](mailto:heather@mech.ubc.ca) | Sarah Clayton/Josy Austin [students@mech.ubc.ca](mailto:students@mech.ubc.ca) |
| Course Planning / Schedule Changes |  |  |  |  | x | x |
| Graduation Checks |  |  |  |  | x | x |
| Requests for Letters (not including references) |  |  |  |  | x | x |
| Personal Advising |  |  |  |  | x | x |
| Difficulties During Term |  |  |  |  | x | x |
| Career & Academic Plans | x | Mechatronics x | Biomedical x | Thermofluids x |  |  |
| General Group Technical Elective Approvals |  |  |  |  | x (+) | x (+) |
| Exchange Advising (+ Approvals) |  |  |  |  | x (+) | x (+) |
| Biomedical Option Advising & TE Approvals |  |  |  |  | x (+) | x (+) |
| Mechatronics Option Advising & TE Approvals |  |  |  |  | x (+) | x (+) |
| Thermofluids Option Advising & TE Approvals |  |  |  |  | x (+) | x (+) |
| Training in Mental Health issues |  |  |  |  | x |  |

Any of the advisors listed above are happy to talk to any student who wishes to see them, regardless of what area they specialize in. We encourage all students to speak to whomever they feel most comfortable approaching, particularly for personal matters. The advising team works together to ensure that every student receives the support they want or need. We can also refer you to other services on campus, ranging from the Writing Centre, to Counseling Services, to the Centre for Accessibility.