

# Bachelor of Applied Science in Electronic Systems Engineering (ESE) 2024-2025 Program

9 electives are required (prerequisites are in brackets)

Term 1 (Fall)		Prerequisites
3.0 CHEM 104		CHEM 30 or CHEM 100 (65%)
3.0 ENGG 100		No prereq required
3.0 PHYS 109		MATH B/C 30 or MATH 102
3.0 MATH 110		MATH B/C 30 (65%)
3.0 MATH 122		MATH B/C 30
Term 2 (Winter)		
3.0 CS 110		MATH B/C 30
3.0 ENGG 123		No prereq required
3.0 ENGL 100		No prereq required
3.0 MATH 111		MATH 110
3.0 ENGG 140		MATH 110 (concurrent enrolment allowed)
Term 3 (Fall)		
3.0 CS 115		CS 110 with 65%
3.0 ENEL 280		MATH 111
3.0 ENEV 223		ENGG 123
3.0 MATH 217		MATH 111 and MATH 122
3.0 PHYS 112		PHYS 109
Term 4 (Winter, Spring/Summer)		
3.0 CS 210		CS 115 and MATH 110
3.0 ENEL 281		ENEL 280 and MATH 217 (concurrent enrolment w/ MATH 217 allowed)
3.0 ENEL 282		ENEL 280
3.0 MATH 213		MATH 111 and MATH 122
3.0 STAT 289		MATH 111
Term 5 (Fall)		
3.0 BUS 260		ENGL 100
3.0 ENEL 383		ENEL 281 and ENEL 282
3.0 ENEL 384		ENEL 282
3.0 ENSE 352		CS 210 and ENEL 384 (concurrent enrolment. w/ ENEL 384 allowed)
3.0 PHYS 201		PHYS 119 and MATH 213 (concurrent enrolment w/ MATH 213 allowed)
Term 6 (Spring/Summer)		
3.0 BUS 210 or 250 or 285 or 302		Bus 210 & 250 (Bus 260) Bus 285 (Econ 201) BUS 302 (30 credit hrs of university studies)
3.0 CS 335		CS 210 and STAT 289
3.0 ECON 201		15 credits or ECON 100
3.0 ENEL 341		ENEL 281 and MATH 217
3.0 ENEL 361		ENIN 233 or ENEL 280 and ENEL 281
Term 7 (Winter)		
3.0 ENEL 351		ENSE 352 and ENEL 384
3.0 ENEL 371		ENEL 281 and PHYS 201 or permission of ESE Program Chair
3.0 ENSE 350		MATH 110 and MATH 122 and CS 210
3.0 Approved Elective		
3.0 Approved Elective		
Term 8 (Fall)		
1.0 ENEL 400		ENEL 383, ENEL 371, ENEL 341 (390), ENEL 361 (380), ENEL 351 (387) and successful completion of 99 credit hours or permission of ESE Program Chair
3.0 ENGG 303		STAT 289 and ECON 201
3.0 Approved Elective		
3.0 Approved Elective		
3.0 Approved Elective		
3.0 Approved Elective		
Term 9 (Winter)		
3.0 ENEL 417		ENEL 400 and ENEL 351
3.0 ENGG 401		ENEL 400
3.0 Approved Elective		
3.0 Approved Elective		
3.0 Approved Elective		

1. Communications		2. Micro-Electronics			
ENEL 442 (ENEL 341)		ENEL 452 (ENEL 351, CS 210)			
ENEL 443 (ENEL 442, CS 335)		ENEL 453 (ENEL 384)			
And 5 courses from the approved list		And 5 courses from the approved list			
3. Control		4. Power			
ENEL 462 (ENEL 361)		ENEL 472 (ENEL 371)			
ENEL 463 (ENEL 462)		ENEL 473 (ENEL 472)			
And 5 courses from the approved list		And 5 courses from the approved list			
<b>Approved list includes Technical, Software, and Risk and Industrial Safety</b>					
Technical Electives					
ENEL 395	ENEL 442	ENEL 462	ENEL 472	ENEL 473	
ENEL 443	ENEL 452	ENEL 453	ENEL 463	ENEL 495	
ENEV 261	ENIN 253	ENSE 481			
Software Electives (may choose one)					
CS 215	CS 330	CS 340	CS 350	CS 372	
CS 375 or any ENSE class except ENSE 477					
Risk and Industrial Safety Electives (may choose one)					
ENEV 334	ENGG 411	ENIN 433	ENIN 440		
Social Science and Humanities Elective (choose one)					
Any Faculty of Arts course					
Natural Science Elective (choose one from)					
Astronomy, Biology, Biochemistry, Geology, Physics, Chemistry (CHEM 100 not permitted)					

**Total credit hours 136 (46 courses)**

**Non coop or internship term sequencing**

Fall	Winter	Spring	Fall	Winter	Spring
1	2		3	4	
Fall	Winter	Spring	Fall	Winter	
5	7	6	8	9	

**PLEASE SEE BACK FOR IMPORTANT INFORMATION**

Revised Oct 5, 2023 – **Subject to Change**

# **FOLLOW PROGRAM SHEET IN SEQUENCE TO AVOID DELAYED GRADUATION**

## **Bachelor of Applied Science in Electronic Systems Engineering (ESE)**

### **Important Information**

**Selection of a Major:** application deadlines are April 1st, August 1st and December 1st.

**Eligibility:** Students admitted to first year with a major of ENGE apply to the major of their choice with a minimum of 8 of the 10 required courses in Year 1 which include ENGG 100, ENGG 123, ENGG 140 and ENGL 100.

Selection of Major form is available on the faculty website:

[https://www.uregina.ca/engineering/students/student-forms.html#fact\\_2\\_4](https://www.uregina.ca/engineering/students/student-forms.html#fact_2_4)

ECON 100 as a Social Science/Humanities Elective. Students may use ECON 100 as a humanities elective if the course is taken before ECON 201.

Transfer Credit for ENGL LV 100 may be used as a Social Science/Humanities Elective.

CHEM 100 may not be used as a Natural Science Elective.

BUS 260 is used as the prerequisite for BUS 250 for engineering students only. Contact the Engineering General Office for registration assistance. The prerequisite for BUS 285 is ECON 201 and the prerequisite for BUS 302 is 30 credit hrs of university studies.

Credit received for STAT 100 and STAT 200 prior to joining the Faculty of Engineering will be accepted as three credit hours for STAT 289.

STAT 289 is available for students in their major; general engineering students cannot register in STAT 289