SIMON FRASER UNIVERSITY

SCHOOL OF ENGINEERING SCIENCE

UNDERGRADUATE COURSE SCHEDULE: SUMMER SEMESTER 2023

(Contact: ensccrd@sfu.ca x25910)

****This schedule is subject to change without notice,**

always consult SIS for the most current and accurate information**

- *A C- grade or better in prerequisite courses is required to register in engineering science courses*
- *Minimum 2.4 CGPA is required for direct registration in upper division courses (excluding ENSC 320)*
- *Other Faculties' students may not register with a CGPA below 2.4*
- *Online enrollment in ENSC 3XX and 4XX courses is restricted to Engineering Science students who have declared their option.*
- *Tutorials without specified days and times will occur during the specified lecture time*

ENSC 151 Intro. to Software Development for Engineers (4) - 50

Prerequisite: BC Math 12 (or equivalent, or any of MATH 100, 150, 151, 154, or 157, with a minimum grade of C-). Students who have taken ENSC 251, CMPT 125, 129, 135, or CMPT 200 or higher first may not then take this course for further credit.

#2490	D100	Lecture	Tue	14:30 – 16:20	K9500	Craig Scratchley
		Lecture	Thu	14:30 – 16:20	AQ3154	Craig Scratchley
#2509	LA02	Laboratory (25)	Tue	12:30 – 14:20	ASB8800	Craig Scratchley
#2511	LA04	Laboratory (25)	Thu	12:30 – 14:20	ASB8800	Craig Scratchley

ENSC 220 Electric Circuits I (4) - 72

REQ-(PHYS 121 or PHYS 126 or PHYS 141) and (ENSC 120). Corequisite: MATH 232 and MATH 210. MATH 232 and/or MATH 310 may be taken concurrently. Students with credit for MSE 250 cannot take this course for further credit. Seats in this course are reserved for students in the Engineering Science or the minor in Computer and Electronics Design program.

#2423	D100	Lecture	Tue/Thu	14:30 – 16:20	AQ3149	Ash Parameswaran
#2516	LA01	Laboratory (36)	Mon	14:30 – 16:50	ASB9800A	Ash Parameswaran
#2517	LA02	Laboratory (36)	Mon	8:30 – 10:50	ASB9800A	Ash Parameswaran

ENSC 225 Microelectronics I (4) - 130

REQ-(ENSC 220 or MSE 250), (MATH 232) and (MATH 310). Students taking or with credit for ENSC 226 or MSE 251 may not take ENSC 225 for further credit. This course has a mandatory lab for all students to complete the course requirements. This lab is an open lab.

#2400	E100	Lecture	Tue/Thu	16:30 – 18:20	WMC3260	Majid Shokoufi
#2408	LA01	Required Lab				Majid Shokoufi

ENSC 251 Software Design & Analysis for Engineers (4) - 144

REQ-(CMPT 128 or CMPT 135), or (CMPT 125 and CMPT 127). Seats in this course are reserved for students in the Engineering Science Major or the minor in Computer and Electronics Design program.

#2424	D100	Lecture	Wed/Fri	14:30 – 16:20	SWH10041	Craig Scratchley
#2428	D101	Tutorial				Craig Scratchley
#2426	LA01	Laboratory (45)	Mon	8:30 – 10:50	ASB8800	Craig Scratchley
#2427	LA02	Laboratory (45)	Wed	16:30 – 18:50	ASB8800	Craig Scratchley
#2713	LA04	Laboratory (45)	Mon	14:30 – 16:50	ASB8800	Craig Scratchley

ENSC 252 Fundamentals of Digital Logic & Design (4) - 135

REQ-(CMPT 128 or CMPT 125 or CMPT 126 or CMPT 135). Students with credit for ENSC/CMPT 150 or ENSC329/MSE 350 cannot take this course for further credit.

#2425	D100	Lecture	Tue/Thu	12:30 – 14:20	WMC3260	Majid Shokoufi
#2429	D101	Tutorial				Majid Shokoufi
#2504	LA01	Laboratory (48)	Wed	10:30 – 12:30	ASB 10877 & 10879	Majid Shokoufi
#2505	LA02	Laboratory (48)	Tue	10:30 – 12:30	ASB 10877 & 10879	Majid Shokoufi
#2506	LA03	Laboratory (48)	Mon	11:00 – 13:00	ASB 10877 & 10879	Majid Shokoufi

ENSC 254 Introduction to Computer Organization (4) - 180

REQ-(ENSC 251 and ENSC 252) or (CMPT 150 and CMPT 225 and enrolled as a Computer Science Major). ENSC 254 is a required course for all Engineering Science Majors and Honours students (no course substitutions are permitted). Students with credit for; or who are concurrently enrolled in ENSC/CMPT 250 or ENSC 329 / MSE 350 cannot take this course for further credit. Seats in this course are reserved for students in Engineering Science program.

#2420	D100	Lecture	Tue/Thu	10:30 – 12:20	EDB7618	Zhenman Fang
#2421	D101	Tutorial				Zhenman Fang
#2471	LA01	Laboratory (45)	Wed	14:30 – 16:20	ASB 9815 & 9817	Zhenman Fang
#2472	LA02	Laboratory (45)	Tue	14:30 – 16:20	ASB 9815 & 9817	Zhenman Fang
#2502	LA03	Laboratory (45)	Fri	14:30 – 16:20	ASB 9815 & 9817	Zhenman Fang
#2422	LA04	Laboratory (45)	Thu	14:30 – 16:20	ASB 9815 & 9817	Zhenman Fang

ENSC 280 Engineering Measurement and Data Analysis (4) - 175

REQ-(PHYS 121 and ENSC 120) or PHYS 141) and (MATH 251 and MATH 232). MATH 251 and/or MATH 232 may be taken concurrently with ENSC 280. Engineering Science Majors and Honours students are required to take ENSC 280 (no course substitutions will be accepted). Students with credit for STAT 270, MSE 210, or PHYS 231 cannot take this course for further credit. Seats in this course are reserved for students in the Engineering Science program.

#2416	D100	Lecture	Tue/Thu	8:30 – 10:20	SSC9002	Atousa Hajshirmohammadi

ENSC 320 Electric Circuits II (4) - 165

REQ-(ENSC 220 or MSE 250), and (MATH 232 and MATH 310). Seats in this course are reserved for students in Engineering Science Program.

#2409	D100	Lecture	Wed/Fri	16:30 - 18:20	AQ3181	Rodney Vaughan
#2430	D101	Tutorial				Rodney Vaughan
#2514	LA01	Required Lab				Rodney Vaughan

ENSC 405W Capstone A: Project Design, Management, and Documentation (3) - 40

Enrollment in this course is by application: https://coursys.sfu.ca/forms/ensc-ensc-405w-capstone-a-application/

#2473	D100	Lecture	Wed/Fri	14:30 – 16:20	AQ5016	Michael Hegedus

ENSC 406 Engineering Ethics, Law, and Professional Practice (2) - 200

REQ-(100 units including one of ENSC 100 or ENSC 106 or CMPT 106 or MSE 102. Students with credit for MSE 402 may not take ENSC 406 for further credit). Online enrollment in this course is restricted to Engineering Science students who have declared their option.

#2432	D100	Lecture	Tue	14:30 – 16:20	AQ3181	Michael Hegedus
#2434	D101	Tutorial (20)	Mon	10:30 – 11:20	AQ4125	Michael Hegedus
#2491	D102	Tutorial (20)	Mon	11:30 – 12:20	AQ4125	Michael Hegedus
#2435	D103	Tutorial (20)	Mon	12:30 – 13:20	AQ4125	Michael Hegedus
#2438	D108	Tutorial (20)	Tue	11:30 – 12:20	AQ4125	Michael Hegedus
#2439	D109	Tutorial (20)	Thu	14:30 – 15:20	AQ5004	Michael Hegedus
#2440	D110	Tutorial (20)	Thu	15:30 – 16:20	AQ5004	Michael Hegedus

ENSC 425 Electronic System Design (4) - 58

REQ-(ENSC 320 and ENSC 325) and (ENSC 380 or MSE 280), and a minimum of 80 units. Online enrollment in this course is restricted to Engineering Science students who have declared their option and students in the minor in Computer and Electronics Design.

#2433	D100	Lecture	Tue/Thu	8:30 – 10:20	AQ5018	Lakshman One
#2441	D101	Tutorial				Lakshman One
#2442	LA01	Required Lab				Lakshman One

ENSC 426 High Frequency Electronics (4) - 40

REQ-Completion of 80 units including (ENSC 416 or PHYS 421) and ENSC 325, with a minimum grade of C-.

#2475	D100	Lecture	Tue/Thu	12:30 – 14:20	WMC2503	Lakshman One
#2464	D101	Tutorial				Lakshman One
#2465	LA01	Required Lab				Lakshman One

ENSC 428 Digital Communications (4) - 40

REQ-Completion of 80 units including ENSC 327 with a minimum grade of C-.

#2721	E100	Lecture	Tue/Thu	16:30 – 18:20	WMC3210	Daniel Lee
#2722	E101	Tutorial				Daniel Lee
#2723	LA01	Required Lab				Daniel Lee

ENSC 429 Digital Signal Processing (4) – 110 Intersession

REQ-(ENSC 327 or ENSC 328) and (ENSC 380 or MSE 280) and a minimum of 80 units. Online enrollment in this course is restricted to Engineering Science students who have declared their option and students in the Minor in Computer and Electronics Design.

#2417	D100	Lecture	T/W/Th/Fr	10:30 – 12:20	AQ3005	Ivan Bajic
#2418	D101	Tutorial				Ivan Bajic
#2419	LA01	Required Lab				Ivan Bajic

ENSC 440 Capstone B: Engineering Design Project (3) - 128

ENSC 405W. Students will be automatically enrolled in ENSC 440 in the term immediately following successful completion of ENSC 405W. Online enrollment in this course is restricted to Engineering students who have declared their option.

#2431	D100	Lecture	Mon	08:30 - 10:20	WMC3260	Shervin Jannesar

ENSC 470 **Optical and Laser Engineering Applications (4) - 40**

REQ- Completion of 80 units including (PHYS 121 or PHYS 126 or PHYS 141) and (MATH 310). Online enrollment in this course is restricted to Engineering Science students who have declared their option.

THIS COURSE IS COMBINED WITH ENSC 894 G100

#2495	D100	Lecture	Wed/Fri	8:30 – 10:20	SWH10051	Shawn Sederberg

ENSC 482 **Introduction to Decision Making in Engineering (4) - 45**

REQ-(MATH 232) and (MACM 316) and (ENSC 280 or MSE 210 or PHYS 231), and a minimum of 80 units. Online enrollment in this course is restricted to Engineering Science students who have declared their option. Students in programs other than Engineering will not be enrolled for this offering.

#2468	D100	Lecture	Wed/Fri	10:30 - 12:20	AQ3153	Shahram Payandeh
#2469	D101	Tutorial				Shahram Payandeh
#4361	LA01	Laboratory				Shahram Payandeh

TEKX 101 **Introduction to 3D Printing and Laser Scanning Technologies (3) - 35**

Students will complete several 3D printed projects within the course. Quantitative/Breadth-Science

#2489	D100	Lecture	Fri	12:30 – 14:20	WMC3255	Juan Ferrer
#2519	D101	Tutorial	Fri	14:30 – 16:20	WMC3255	Juan Ferrer