SIMON FRASER UNIVERSITY
SCHOOL OF ENGINEERING SCIENCE
UNDERGRADUATE COURSE SCHEDULE: SPRING 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 180 — Introduction to Engineering Analysis (3) (200 Cap)
REQ-(CMPT 128, CMPT 120, or CMPT 130) and (MATH 151 or MATH 150). Corequisite: MATH 152 and MATH 232.

#	Section	Type	Day	Time	Room	Instructor
#2938	D100	Lecture	Tue	12:30 – 14:20	WMC3520	Herbert Tsang
#2939	LA01	Laboratory	Thu	12:30 – 14:20	B9200	Herbert Tsang

ENSC 325 — Microelectronics II (4) (112 Cap)
REQ-ENSC 225 or ENSC 226 orMSE251

#	Section	Type	Day	Time	Room	Instructor
#2940	D100	Lecture	Tue/Thu	10:30 – 12:20	AQ3154	Majid Shokoufi
#2942	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Majid Shokoufi
#2943	LA01	Required Lab	TBA	TBA		Majid Shokoufi

ENSC 327 — Communication Systems (4) (150 Cap)
REQ-(ENSC 380 or MSE 280) and ENSC 280.

#	Section	Type	Day	Time	Room	Instructor
#2998	D200	Lecture	Tue/Thu	14:30 – 16:20	WMC3260	Daniel Lee
#3001	D201	Tutorial	TBA	TBA		Daniel Lee
#3002	LA02	Required Lab	TBA	TBA		Daniel Lee

ENSC 350 — Digital Systems Design (4) (140 Cap)
REQ-(ENSC 215 and either ENSC 250 or CMPT 250) or (ENSC 252 and ENSC 254)

#	Section	Type	Day	Time	Room	Instructor
#2996	D100	Lecture	Wed/Fri	8:30 – 10:20	WMC3260	Behnam Ghavami
#2997	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Behnam Ghavami
#3063	LA01	Required Lab	Friday	10:30 – 13:00	ASB10877	Behnam Ghavami
#3064	LA02	Required Lab	Friday	10:30 – 13:00	ASB10879	Behnam Ghavami
#3069	LA03	Required Lab	Friday	13:00 – 15:30	ASB10877	Behnam Ghavami
#3065	LA04	Required Lab	Friday	13:00 – 15:30	ASB10879	Behnam Ghavami

ENSC 383 — Feedback Control Systems (4) (120 Cap)
REQ-ENSC 380 (or MSE 280). Students with credit for MSE 381 may not take ENSC 383 for further credit

#	Section	Type	Day	Time	Room	Instructor
#2999	D100	Lecture	Tue/Thu	12:30 – 14:20	K9500	Kamal Gupta
#3003	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Kamal Gupta
#3117	LA02	Required Lab	TBA	TBA		Kamal Gupta

ENSC 386 — Introduction to Mechanical Design (4) (50 Cap)

REQ-PHYS 120, MATH 310, and (ENSC 281 or ENSC 385). Students who have previously taken ENSC 230 cannot take this course for credit.

#3000	D100	Lecture	Tue/Thu	8:30 – 10:20	SWH10051	Shahram Payandeh
#3004	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Shahram Payandeh
#3005	LA01	Required Lab	TBA	TBA	TBA	Shahram Payandeh

ENSC 387 — Introduction to Electro-Mechanical Sensors and Actuators (4) (55 Cap)

REQ-ENSC 380 or MSE 280. Students with credit for MSE 310 may not take ENSC 387 for further credit.

#2941	D100	Lecture	Wed/Fri	14:30 – 16:20	AQ5037	Ash Parameswaran
#2944	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Ash Parameswaran
#3070	LA01	Required Lab	TBA	TBA		Ash Parameswaran

ENSC 405W — Capstone A: Project Design, Management, and Documentation (3) (100 Cap)

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

#2945	D100	Lecture	Tue	12:30 – 14:20	AQ3003	Michael Hegedus
#2948	LA01	Laboratory	Thu	12:30 – 14:20	AQ3005	Michael Hegedus

ENSC 410 — The Business of Engineering (3) (140 Cap)

REQ- A minimum of 80 units is required to enroll in this course. Students with credit for ENSC 201, ENSC 411, or MSE 300 cannot complete this course for further credit

#2946	E100	Lecture	Wed/Fri	16:30 – 18:20	K9500	Ryan D'Arcy
#3071	E101	Tutorial	TBA	TBA	TBA	Ryan D'Arcy

ENSC 413 — Deep Learning Systems in Engineering (3) (28 Cap)

Enrollment in this course is by application: https://coursys.sfu.ca/forms/ensc-413-application-form/ THIS COURSE IS COMBINED WITH ENSC 813 G100

#2960	D100	Lecture	Tue/Thu	14:30 – 16:20	AQ3149	Faisal Beg
#3074	D101	Tutorial	TBA	TBA	TBA	Faisal Beg

ENSC 416 — Engineering Electromagnetics II: Design (4) (34 Cap)

REQ-ENSC 316 with a grade of at least C+.

#2953	D100	Lecture	Tue/Thu	8:30 – 10:20	AQ5008	Chris Hynes
#3066	LA01	Required Lab	TBA	TBA	TBA	Chris Hynes

ENSC 427 — Communication Networks (4) (45 Cap)

REQ-ENSC 327. A minimum of 80 units required. Engineering students may not take CMPT 371 as a substitute for ENSC 427. THIS COURSE IS COMBINED WITH ENSC 894 G300

#3127	E100	Lecture	Tue/Thu	18:30 – 20:20	WMC3210	Ljiljana Trajkovic
#3128	E101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Ljiljana Trajkovic
#3129	LA01	Required Lab	TBA	TBA		Ljiljana Trajkovic

ENSC 450   VLSI Systems Design (4) (45 Cap)

REQ- (ENSC 225 or ENSC 226 or MSE 251) and ENSC 350, and a minimum of 80 units.

#2957	E100	Lecture	Tue/Thu	16:30 – 18:20	WMC2532	Aminreza Ahari Kaleibar
#2958	E101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Aminreza Ahari Kaleibar
#3067	LA01	Laboratory (23)	Wed	Sessional	ASB9815	Aminreza Ahari Kaleibar
#3068	LA02	Laboratory (22)	Fri	Sessional	ASB9815	Aminreza Ahari Kaleibar

ENSC 452   Advanced Digital System Design (4) (40 Cap)

REQ-ENSC 350 and 351, a minimum of 80 units. THIS COURSE IS COMBINED WITH ENSC 894 G100

| #3015 | E100 | Lecture | Wed/Fri | 14:30 – 16:20 | WMC2202 | Lesley Shannon |
| #3016 | LA01 | Laboratory | Mon | 14:30 – 18:20 | ASB8800 | Lesley Shannon |

ENSC 474   Digital/Medical Image Processing (4) (45 Cap)

REQ- ((ENSC 180 and ENSC 251) or CMPT 225), and a minimum of 80 units. Students with credit for ENSC 460/895-Digital Image Processing and Analysis cannot take this course for further credit. THIS COURSE IS COMBINED WITH ENSC 895 G200.

#2936	D100	Lecture	Wed/Fri	14:30 – 16:20	WMC3210	Parvaneh Saeedi
#2937	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Parvaneh Saeedi
#3072	LA01	Required Lab	TBA	TBA		Parvaneh Saeedi

ENSC 475   Biomedical Instrumentation (4) (24 Cap)

REQ- (ENSC 225 or MSE 251), ENSC 320, (ENSC 380 or MSE 280) and a minimum of 80 units. ENSC 380/MSE 280 can be taken concurrently. Students with credit for ENSC 372 cannot take this course for further credit. THIS COURSE IS COMBINED WITH ENSC 895 G400

#2965	D100	Lecture	Tue/Thu	10:30 – 12:20	AQ5018	Bonnie Gray
#2966	D101	Tutorial	TBA	TBA		Bonnie Gray
#2967	LA01	Laboratory	TBA	TBA		Bonnie Gray

ENSC 483   Modern Control Systems (4)

Prerequisite: ENSC 383 or MSE 381, with a minimum grade of C- and a minimum of 80 units. Students with credit for MSE 483 may not take ENSC 483 for further credit.

| #4292 | D100 | Lecture | Wed/Fri | 12:30 – 14:20 | AQ3153 | Shervin Jannesar |
| #4291 | D101 | Laboratory | TBA | TBA | TBA | Shervin Jannesar |

ENSC 488   Introduction to Robotics (4) (50 Cap)

REQ-(ENSC 230 or ENSC 386) and (ENSC 383 or MSE 381), and 80 units. THIS COURSE IS COMBINED WITH ENSC 894 G400

#2947	D100	Lecture	Wed	8:30 – 10:20	K9500	Michael Hegedus
			Fri	8:30 – 10:20	AQ3154	
#2949	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Michael Hegedus
#2950	LA01	Required Lab	TBA	TBA		Michael Hegedus

ENSC 495   Introduction to Microelectronic Fabrication (4) (17 Cap)

REQ-ENSC 225 or ENSC 226 or MSE 251 or PHYS 365, and permission of the instructor and a minimum of 80 units. Enrolment in this course is by application only. Please fill in this form https://coursys.sfu.ca/forms/ensc-495-application-form/ THIS COURSE IS COMBINED WITH ENSC 851 G100

#3112	E200	Lecture	Mon	16:30 – 18:20	AQ5037	Michael Adachi
#3113	LB01	Laboratory	Wed	16:30 – 20:20	ASB8825	Michael Adachi
#3114	LB02	Laboratory	Fri	8:30 – 12:20	ASB8825	Michael Adachi

TEKX101   **Introduction to 3D Printing & Scanning Technologies (3) (35 Cap)**
Students will learn the basic concepts of 3D printing, computer design tools, and the use of 3D scanners to make replicas of existing objects. Students will complete several 3D printed projects within the course. Quantitative/Breadth-Science.

| #2993 | D100 | Lecture | Fri | 12:30 – 14:20 | WMC3255 | Juan Ferrer |
| #3395 | D101 | Tutorial | Fri | 14:30 – 16:20 | WMC3533 | Juan Ferrer |