SIMON FRASER UNIVERSITY
SCHOOL OF ENGINEERING SCIENCE
UNDERGRADUATE COURSE SCHEDULE: FALL SEMESTER 2022

(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 100W　　**Engineering, Science and Society (3)**
REQ-Corequisite: ENSC 105W. Students with credit for ENSC 100, CMPT 106, ENSC 106, or MSE 102 may not take this course for further credit.

#5936	E100	Lecture	Mon	17:30 – 19:20	SWH10081	Michael Hegedus
			Wed	17:30 – 18:20	B9201	Michael Hegedus
#6154	LA01	Laboratory (8)	Mon	10:30 – 11:20	RCB7102	Michael Hegedus
#6155	LA02	Laboratory (8)	Mon	10:30 – 11:20	WMC2530	Michael Hegedus
#6156	LA03	Laboratory (8)	Mon	10:30 – 11:20	RCB5100	Michael Hegedus
#6157	LA04	Laboratory (8)	Mon	11:30 – 12:20	RCB7102	Michael Hegedus
#6158	LA05	Laboratory (8)	Mon	11:30 – 12:20	WMC2530	Michael Hegedus
#6159	LA06	Laboratory (8)	Mon	11:30 – 12:20	RCB5100	Michael Hegedus
#6160	LA07	Laboratory (8)	Mon	16:30 – 17:20	RCB7101	Michael Hegedus
#6161	LA08	Laboratory (8)	Mon	16:30 – 17:20	RCB7102	Michael Hegedus
#6162	LA09	Laboratory (8)	Mon	16:30 – 17:20	RCB5100	Michael Hegedus
#6163	LA10	Laboratory (8)	Tue	12:30 – 13:20	WMC2530	Michael Hegedus
#6164	LA11	Laboratory (8)	Tue	12:30 – 13:20	RCB5100	Michael Hegedus
#6165	LA12	Laboratory (8)	Tue	13:30 – 14:20	WMC2530	Michael Hegedus
#6166	LA13	Laboratory (8)	Tue	13:30 – 14:20	RCB5100	Michael Hegedus
#6167	LA14	Laboratory (8)	Tue	16:30 – 17:20	RCB7102	Michael Hegedus
#6168	LA15	Laboratory (8)	Tue	16:30 – 17:20	RCB5100	Michael Hegedus
#6169	LA16	Laboratory (8)	Tue	17:30 – 18:20	WMC2530	Michael Hegedus
#6170	LA17	Laboratory (8)	Tue	17:30 – 18:20	RCB5100	Michael Hegedus
#6171	LA18	Laboratory (8)	Wed	13:30 – 14:20	WMC2530	Michael Hegedus
#6172	LA19	Laboratory (8)	Wed	13:30 – 14:20	RCB5100	Michael Hegedus
#6173	LA20	Laboratory (8)	Wed	15:30 – 16:20	WMC2530	Michael Hegedus
#6174	LA21	Laboratory (8)	Wed	15:30 – 16:20	RCB5100	Michael Hegedus
#6175	LA22	Laboratory (8)	Wed	16:30 – 17:20	WMC2530	Michael Hegedus
#6176	LA23	Laboratory (8)	Wed	16:30 – 17:20	RCB5100	Michael Hegedus
#6177	LA24	Laboratory (8)	Wed	13:30 – 14:20	RCB7101	Michael Hegedus
#8096	LA25	Laboratory (8)	Wed	13:30 – 14:20	RCB6100	Michael Hegedus
#8097	LA26	Laboratory (8)	Wed	14:30 – 15:20	RCB7101	Michael Hegedus
#8098	LA27	Laboratory (8)	Wed	14:30 – 15:20	RCB7102	Michael Hegedus
#8129	LA28	Laboratory (8)	Tue	12:30 – 13:20	AQ5046	Michael Hegedus
#8130	LA29	Laboratory (8)	Tue	13:30 – 14:20	AQ5046	Michael Hegedus
#8131	LA30	Laboratory (8)	Tue	16:30 – 17:20	AQ5026	Michael Hegedus

ENSC 105W   **Process of Prof. Writing (3)**

REQ-Corequisite: CMPT 106, ENSC 100 or ENSC 106. Students with credit for CMPT 105W, ENSC 102 or MSE 101W may not take ENSC 105W for further credit

#5932	D100	Lecture	Mon	12:30 – 13:20	WMC3520	Michael Sjoerdsma
			Wed	12:30 – 13:20	WMC3520	Michael Sjoerdsma
			Fri	12:30 – 13:20	WMC3520	Michael Sjoerdsma

ENSC 120   **Introduction to Electronics Laboratory Instruments Operation and Measurement Techniques (2)**

Prerequisite: BC Pre-Calculus 12 and BC Physics 12 (or equivalents).

#5929	D100	Lecture	Thu	8:30 – 10:20	WMC3520	Atousa Hajshirmohammadi
#5962	LA01	Laboratory (35)	Wed	10:30 – 12:20	ASB9800A	Atousa Hajshirmohammadi
#6011	LA02	Laboratory (35)	Wed	10:30 – 12:20	ASB9800A	Atousa Hajshirmohammadi
#5933	LA03	Laboratory (35)	Tue	10:30 – 12:20	ASB9800A	Atousa Hajshirmohammadi
#6012	LA04	Laboratory (35)	Tue	10:30 – 12:20	ASB9800A	Atousa Hajshirmohammadi
#5934	LA05	Laboratory (35)	Wed	14:30 – 16:20	ASB9800A	Atousa Hajshirmohammadi
#5963	LA06	Laboratory (35)	Wed	14:30 – 16:20	ASB9800A	Atousa Hajshirmohammadi
#8133	LA07	Laboratory (35)	Thu	16:30 – 18:20	ASB9800A	Atousa Hajshirmohammadi

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

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.

#7393	D100	Lecture	Tue/Thu	14:30 – 16:20	AQ3181	Craig Scratchley
#7394	LA01	Laboratory (40)	Tue	10:30 – 12:20	ASB8800	Craig Scratchley
#7395	LA02	Laboratory (40)	Thu	10:30 – 12:20	ASB8800	Craig Scratchley
#7396	LA03	Laboratory (40)	Fri	10:30 – 12:20	ASB8800	Craig Scratchley
#7397	LA04	Laboratory (40)	Fri	13:30 – 15:20	ASB8800	Craig Scratchley
#7398	LA05	Laboratory (40)	Fri	15:30 – 17:20	ASB8800	Craig Scratchley
#8116	LA06	Laboratory (40)	Tue	8:30 – 10:20	ASB8800	Craig Scratchley

ENSC 204   **Graphical Communication for Engineering (1)**

Students who have taken ENSC 104, MSE 100 or SEE 100 first may not then take this course for further credit.

#5935	D100	Lecture	Wed	15:30 - 16:20	AQ3181	Shervin Jannesar

ENSC 220   **Electric Circuits I (4)**

REQ-(PHYS 121 or PHYS 126 or PHYS 141), ENSC 120, MATH 232 and MATH 310. MATH 232 and/or MATH 310 may be taken concurrently. Students with credit for MSE 250 cannot take this course for further credit

#5931	D100	Lecture	Tue/Thu	14:30 – 16:20	AQ3003	Ash Parameswaran
#6185	LA01	Laboratory (35)	Mon	11:30 – 13:50	ASB9800A	Ash Parameswaran
#6186	LA02	Laboratory (35)	Mon	14:00 – 16:20	ASB9800A	Ash Parameswaran
#6187	LA03	Laboratory (35)	Tue	16:30 – 18:50	ASB9800A	Ash Parameswaran

ENSC 225   **Microelectronics I (4)**

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.

#6006	D100	Lecture	Tue/Thu	14:30 – 16:20	SWH10041	Majid Shokoufi
#6007	LA01	Required Lab	TBA	TBA	TBA	Majid Shokoufi

ENSC 251 — Software Design & Analysis for Engineers (4)

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.

#	Section	Type	Days	Time	Room	Instructor
#5939	D100	Lecture	Tue/Thu	12:30 – 14:20	AQ3150	Zhenman Fang
#5945	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Zhenman Fang
#5946	LA01	Laboratory (40)	Wed	12:00 – 14:20	ASB9896	Zhenman Fang
#5947	LA02	Laboratory (40)	Thu	16:30 – 18:50	ASB9896	Zhenman Fang
#5948	LA03	Laboratory (40)	Fri	12:00 – 14:20	ASB9896	Zhenman Fang

ENSC 252 — Fundamentals of Digital Logic & Design (4)

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.

#	Section	Type	Days	Time	Room	Instructor
#5940	D100	Lecture	Tue/Thu	10:30 – 12:20	AQ3150	Majid Shokoufi
#5941	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Majid Shokoufi
#5942	LA01	Laboratory (48)	Tue	16:30 – 18:50	ASB9896	Majid Shokoufi
#5943	LA02	Laboratory (48)	Tue	8:00 – 10:20	ASB9896	Majid Shokoufi
Tentative #5944	*LA03*	*Laboratory (48)*	*Thu*	*8:00 – 10:20*	*ASB9896*	*Majid Shokoufi*

ENSC 316 — Engineering Electromagnetics 1 (3)

REQ- MATH 251 and (ENSC 220 or MSE 250).

#	Section	Type	Days	Time	Room	Instructor
#5960	D100	Lecture	Tue/Thu	10:30 – 12:20	SSC9500	Bernhard Rabus
#5961	D101	Tutorial	*One weekly hour of tutorial will occur within the scheduled lecture time*			Bernhard Rabus

ENSC 324 — Electronic Devices (3)

REQ- (ENSC 220 or MSE 250), MATH 232, and MATH 310. Students with credit for ENSC 224 or PHYS 365 may not take ENSC 324 for further credit.

#	Section	Type	Days	Time	Room	Instructor
#5953	D100	Lecture	Tue/Thu	8:30 – 10:20	WMC3260	Shawn Sederberg
#7333	D101	Tutorial	*TBA*	*TBA*	*TBA*	Shawn Sederberg
#7334	LA01	Required Lab	*TBA*	*TBA*	*TBA*	Shawn Sederberg

ENSC 350 — Digital Systems Design (4)

REQ-(ENSC 215 and either ENSC 250 or CMPT 250) or (ENSC 252 and ENSC 254)

#	Section	Type	Days	Time	Room	Instructor
#6214	D100	Lecture	Wed	8:30 – 10:20	AQ3153	Lakshman One
		Lecture	Fri	8:30 – 10:20	AQ3005	Lakshman One
#6215	D101	Tutorial	*TBA*	*TBA*	*TBA*	Lakshman One
Tentative #6284	*LA01*	*Laboratory (48)*	*Wed*	*10:30 – 12:30*	*ASB 8800*	*Lakshman One*
#6285	LA02	Laboratory (48)	Wed	12:30 – 14:20	ASB 8800	Lakshman One

ENSC 351 Embedded and Real Time System Software (4)

REQ-(CMPT 128 and ENSC 215 and ENSC 250) or ENSC 254 or (CMPT 225 and (CMPT 250 or CMPT 295)) and a minimum of 60 credit hours/units. Students with credit for or who are concurrently enrolled in ENSC 451/MSE 450 cannot take this course for further credit.

#5930	D100	Lecture	Tue/Thu	14:30 – 16:20	WMC3260	Brian Fraser
#5964	D101	Tutorial	*TBA*	*TBA*	*TBA*	Brian Fraser
#5937	LA01	Laboratory (45)	Mon	16:30 – 20:20	ASB8800	Brian Fraser
#5938	LA02	Laboratory (45)	Tue	16:30 – 20:20	ASB8800	Brian Fraser
#5950	LA03	Laboratory (45)	Wed	16:30 – 20:20	ASB8800	Brian Fraser
#6200	LA04	Laboratory (45)	Thu	16:30 – 20:20	ASB8800	Brian Fraser

ENSC 370 Biomedical Engineering Directions (3)

REQ-Completion of at least 25 units of engineering science (ENSC) courses.

| #6222 | D100 | Lecture | Fri | 14:30 – 16:20 | AQ5020 | Andrew Rawicz |
| #5955 | D101 | Tutorial | Wed | 14:30 – 16:20 | AQ2120 | Andrew Rawicz |

ENSC 380 Linear Systems (3)

REQ-ENSC 180, 220 (or MSE 250) and MATH 310. Students with credit for MSE 280 may not take ENSC 380 for further credit.

| #5951 | D100 | Lecture | Tue/Thu | 12:30 – 14:20 | SSC9002 | Atousa Hajshirmohammadi |
| #7335 | D101 | Tutorial | *TBA* | *TBA* | *TBA* | Atousa Hajshirmohammadi |

ENSC 385 Statics and Strength of Materials (3)

REQ: (PHYS 120 or PHYS 140) and MATH 152. Students with credit for ENSC 281 or MSE 221 cannot take this course for further credit.

| #5954 | D100 | Lecture | Wed/Fri | 10:30 – 12:20 | AQ5016 | Shervin Jannesar |
| #7336 | LA01 | Required Lab | *TBA* | *TBA* | *TBA* | Shervin Jannesar |

ENSC 424 Multimedia Communications Engineering (4)

REQ- ENSC 380 or MSE 280, with a minimum grade of C- and a minimum of 80 units.

| #5952 | D100 | Lecture | Wed/Fri | 8:30 – 10:20 | AQ3149 | Jie Liang |
| #5956 | D101 | Tutorial | *One weekly hour of tutorial will occur within the scheduled lecture time* | | | Jie Liang |

ENSC 440 Capstone B: Engineering Design Project (3)

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.

| #5958 | D100 | Lecture | Wed | 16:30 – 18:20 | BLU10921 | Andrew Rawicz |

ENSC 453 Programming for Heterogeneous Computing Systems (4)

4th-year+ Computer Engineering **elective** undergraduates. REQ- ENSC 350 and ENSC 351. THIS COURSE IS COMBINED WITH ENSC 894 G100.

| #7388 | D100 | Lecture | Wed/Fri | 10:30 – 12:20 | BLU10921 | Zhenman Fang |
| #7389 | LA01 | Laboratory | Fri | 14:30 – 16:20 | ASB 8836 | Zhenman Fang |

ENSC 462 Biomedical Microdevices & Systems (3)

This course introduces students to microdevices and systems with applications in biology, chemistry and medicine. THIS COURSE IS COMBINED WITH ENSC 859 G100.

| #7788 | D100 | Lecture | Tue | 12:30 – 14:20 | SWH10051 | Bonnie Gray |
| | | | Thu | 12:30 – 14:20 | BLU11911 | Bonnie Gray |

ENSC 477   **Biomedical Image Acquisition (4)**

REQ-(ENSC 380 or MSE 280) with a minimum grade of C- and a minimum of 80 units. Students with credit for ENSC 374 cannot take this course for further credit. THIS COURSE IS COMBINED WITH ENSC 895 G100.

#6003	D100	Lecture	Tue	14:30 – 16:20	WMC2503	Teresa Cheung
			Thu	14:30 – 16:20	AQ5006	Teresa Cheung
#7337	D101	Tutorial	*TBA*	*TBA*	*TBA*	Teresa Cheung
#7339	LA01	Laboratory	*TBA*	*TBA*	*TBA*	Teresa Cheung

TEKX101   **3D Printing Technologies (3)**

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.

#6019	D100	Lecture	Fri	12:30 – 14:20	WMC3510	Juan Ferrer
	D101	Tutorial	Fri	14:30 – 15:20	WMC2507	Juan Ferrer