

V5.1 Bachelor of Software Engineering (BSENG)—Student's Perspective

	1A	1B	2A	2B	3A	3B	4A	4B
1	SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC	SE3 Architecture&Methods SENG221 (new) SENG	SE4 Systems Programming SENG265 SENG	SE5 Requirements&Specifi SENG321 (new) SENG	SE6 Software evolution SENG371 (new) SENG	SE7 Embedded systems SENG421 (new) SENG	SE8 SWQuality Engineering SENG471 (new) SENG
2	MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC	CAS CompArch&Assem CSC230 CSC	ALG1 Algos & data structs CSC 225 CSC	DD Digital Design CSC355 CSC/CENG/ELEC	AFL Foundations CSC 320 CSC	Elective CSC/CENG/ELEC	CAPB Design Project SENG499 (new) SENG
3	LA Linear algebra MATH133 MATH	WE Web engineering SENG130 (new) SENG	PS Probability/Statistics STAT 260 MATH	HCI Human-comp interacti SENG310 SENG	OSDC Operating systems CSC360 CSC	DB Databases CSC370 CSC	NET Networks CSC450/CENG460 CSC/CENG/ELEC	RT Real-time systems CENG455/CSC460 CSC/CENG/ELEC
4	CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH	SYSDYN System Dynamics ELEC255 (new) ELEC	SAS Signals and Systems ELEC265 (new) ELEC	CTRL Control Systems ELEC361 (new) ELEC	SEC Security Engineering SENG372 (new) SENG	Elective CSC/CENG/ELEC	Elective CSC/CENG/ELEC
5	PHY Basic Science Phys126 (new) SCIENCE	CHE Basic Science CHEM150 SCIENCE	DS1 Discrete math&logic MATH122 MATH	DS2 Discrete math&logic MATH222 MATH	BSC5 Basic Science BIOC102 SCIENCE	BSC6 Basic Science EOS110 SCIENCE	Elective CSC/CENG/ELEC	Elective CSC/CENG/ELEC
6		ENGL English ENGL115 ENGL	TECHWRT Technical writing ENGR240 ENGR	BUS1 Economics & Entrpren ENGR281 (new) BUS	BUS2 Planning & Managem COM241 (new) BUS	CST5 Elective Any faculty MISC	FE Free Elective Any faculty MISC	SOCIAL Social&prof issues SENG401 (new) SENG

Legend	
SENG Core	MATH Core
ENG Core	CSC Core
BScience	CStudies
Elective	
Required	Elective
Black type	Blue type
For prerequisite structure	
Refer to prerequisite sheet	

SENG	11
CSC	7
CSC/CENG/EI	8
CENG/ELEC	4
MECH	1
MATH	6
SCIENCE	4
MISC CST	5
ENGR	1
Total	47

Engineering Electives

CAPA Design Project SENG499 (new) SENG	ARCH Software architecture SENG422 SENG	CBSE Software components SENG454 (new) SENG	FTC Fault-tolerant computir CSC454 CSC	CC Compiler constructior CSC435 CSC	SP Software Process SENG472 SENG	TOP Topics in SE SENG480 SENG
ALG2 Algos Analysis CSC326 CSC	ALG3 Analysis of Algos CSC425 CSC	CG Computer Graphics CSC405 CSC	MMS Multimedia systems SENG410/CSC461/EL CSC/CENG/ELEC	PL Prog. Languages CSC330 CSC	AOOD Advanced OO Desigr SENG430 SENG	TOP Topics in CSC CSC485 CSC
IKM Info&knwldg mgmt SENG315 (new) SENG	NC Netcentric-computing SENG450 SENG	CON Concurrency CSC464 (new) CSC	DC Distributed computing SENG462/CSC462 SENG	CSCW Collaborative worl SENG435 (new) SENG	MSD Management of SL SENG470 SENG	TOP Topics in CENG CENG496 CENG
DSP Digital Signal Processi ELEC310 ELEC	COM Communications ELEC350 ELEC	WMC Wireless&Mobile Com ELEC441 (new) ELEC	AI Artificial Intelligence CENG420 CENG	PATREC Pattern Recognitior ELEC485 ELEC	MIN Data mining SENG474 (new) SENG	TOP Topics in ELEC ECE496 ELEC
NA Numerical analysis CSC349A/CSC340 CSC	ORLP OR & Lin. Programmin CSC448A/CSC448B CSC	ORSIM OR & Simulation CSC448A/CSC448B CSC	CSA Systems & Architectur CENG450 CENG	MICRO Microprocessor Syster CENG355 CENG	ERGO Ergonomics SENG412 SENG	ROBOT Robotics ELEC426/MECH430 MECH/ECE

Most other CSC/CENG/ECE courses can be taken as electives
The above courses are the core electives

V5.1 Bachelor of Software Engineering (BSENG)—Student's Perspective

	1A	1B	2A	2B	3A	3B	4A	4B
1	SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC	SE3 Architecture&Methods SENG221 (new) SENG	SE4 Systems Programming SENG265 SENG	SE5 Requirements&Specific SENG321 (new) SENG	SE6 Software evolution SENG371 (new) SENG	SE7 Embedded systems SENG421 (new) SENG	SE8 SWQuality Engineering SENG471 (new) SENG
2	MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC	CAS CompArch&Assem CSC230 CSC	ALG1 Algos & data structs CSC 225 CSC	DD Digital Design CSC355 CSC/CENG/ELEC	AFL Foundations CSC 320 CSC	Elective	CAPB Design Project SENG499 (new) SENG
3	LA Linear algebra MATH133 MATH	WE Web engineering SENG130 (new) SENG	PS Probability&Statistics STAT 260 MATH	HCI Human-comp interacti SENG310 SENG	OSDC Operating systems CSC360 CSC	DB Databases CSC370 CSC	NET Networks CSC450/CENG460 CSC/CENG/ELEC	RT Real-time systems CENG455/CSC460 CSC/CENG/ELEC
4	CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH	SYSDYN System Dynamics ELEC255 (new) ELEC	SAS Signals and Systems ELEC265 (new) ELEC	CTRL Control Systems ELEC361 (new) ELEC	SEC Security Engineering SENG372 (new) SENG	Elective	Elective
5	PHY Basic Science Phys126 (new) SCIENCE	CHE Basic Science CHEM150 SCIENCE	DS1 Discrete math&logic MATH122 MATH	DS2 Discrete math&logic MATH222 MATH	BSC5 Basic Science BIOC102 SCIENCE	BSC6 Basic Science EOS110 SCIENCE	Elective	Elective
6		ENGL English ENGL115 ENGL	TECHWRT Technical writing ENGR240 ENGR	BUS1 Economics & Entrepr ENGR281 (new) BUS	BUS2 Planning & Managem COM241 (new) BUS	CST5 Elective Any faculty MISC	FE Free Elective Any faculty MISC	SOCIAL Social&prof issues SENG401 (new) SENG

Legend	
SENG Core	MATH Core
ENG Core	CSC Core
BScience	CStudies
Elective	
Required	Elective
Black type	Blue type
For prerequisite structure	
Refer to course catalog	

SENG	11
CSC	7
CSC/CENG/EL	8
CENG/ELEC	4
MECH	1
MATH	6
SCIENCE	4
MISC CST	5
ENGR	1
Total	47

Engineering

Electives

CAPA	ARCH	CBSE	FTC	CC	SP	TOP
Design Project SENG499 (new)	Software architecture SENG422	Software components SENG435 (new)	Fault-tolerant computin CSC454	Compiler construction CSC435	Software Process SENG472	Topics in SE SENG480
SENG	SENG	SENG	SENG	SENG	SENG	SENG
ALG2	ALG3	CG	MMS	PL	AOOD	TOP
Algos Analysis CSC326	Analysis of Algos CSC425	Computer Graphics CSC405	Multimedia systems SENG410/CSC461/EL	Prog. Languages CSC330	Advanced OO Design SENG430	Topics in CSC CSC485
CSC	CSC	CSC	CSC/CENG/ELEC	CSC	CENG	CSC
IKM	NC	CON	DC	CSCW	MSD	TOP
Info&knowldg mgmt SENG315 (new)	Netcentric-computing SENG450	Concurrency CSC464 (new)	Distributed computing SENG462/CSC462	Collaborative work SENG454 (new)	Management of SD SENG470	Topics in CENG CENG496
SENG	SENG	CSC	SENG	SENG	SENG	CENG
DSP	COM	WMC	AI	PATREC	MIN	TOP
Digital Signal Processi ELEC310	Communications ELEC350	Wireless&Mobile Com ELEC441 (new)	Artificial Intelligence CENG420	Pattern Recognition ELEC485	Data mining SENG474 (new)	Topics in ELEC ECE496
ELEC	ELEC	ELEC	CENG	ELEC	SENG	ELEC
NA	ORLP	ORSIM	CSA	MICRO	ERGO	ROBOT
Numerical analysis CSC349A/CSC340	OR & Lin. Programmin CSC448A/CSC448B	OR & Simulation CSC448A/CSC448B	Systems & Architectur CENG450	Microprocessor System CENG355	Ergonomics SENG412	Robotics ELEC426/MECH430
CSC	CSC	CSC	CENG	CENG	SENG	MECH/ECE

Most other CSC/CENG/ECE courses can be taken as elective
The above courses are the core elective:

V5.1 **BSENG 1st Year of Operations (Phase in)**

	1A	1B	2A	2B	3A	3B	4A	4B
1	SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC	SE3 Architecture&Methods SENG221 (new) SENG	SE4 Systems Programming SENG265 (new) SENG	SE5 Requirements&Specifi SENG321 (new) SENG	SE6 Software evolution SENG471 (new) SENG	SE7 Embedded systems SENG421 (new) SENG	SE8 SWQuality Engineering SENG471 (new) SENG
2	MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC	CAS CompArch&Assem CSC230 CSC	ALG1 Algos & data structs CSC 225 CSC	DD Digital Design CSC355/CENG355 CSC/CENG	AFL Foundations CSC 320 CSC	Elective CSC/CENG/ELEC	CAPB Design Project SENG499 (new) SENG
3	LA Linear algebra MATH133 MATH	CHE Basic Science CHEM150 SCIENCE	PS Probability/Statistics STAT 260 MATH	HCI Human-comp interacti SENG310 SENG	OSDC Operating systems CSC360 CSC	DB Databases CSC370 CSC	NET Networks CSC450/CENG460 CSC/CENG	RT Real-time systems CENG455/CSC460 CSC/CENG
4	CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH	SYSDYN System Dynamics ELEC255 (new) CENG/ELEC	SAS Signal Processing ELEC310 ELEC	CTRL Control Systems ELEC361 (new) ELEC	SEC Security Engineering SENG 372 (new) SENG	Elective CSC/CENG/ELEC	Elective CSC/CENG/ELEC
5	PHY Basic Science Phys122 SCIENCE	PHY Basic Science PHYS125 SCIENCE	DS1 Discrete math&logic MATH122 MATH	DS2 Discrete math&logic MATH222 MATH	BSC5 Basic Science BIOC102 SCIENCE	BSC6 Basic Science EOS110 SCIENCE	Elective CSC/CENG/ELEC	Elective CSC/CENG/ELEC
6		ENGL English ENGL115 ENGL	TECHWRT Technical writing ENGR240 ENGR	BUS1 Economics & Entrepren ENGR280 ENGR	BUS2 Planning & Manageme ECON 205 COM	CST5 Elective MISC	FE Free Elective Any faculty MISC	SOCIAL Social&prof issues SENG401 (new) SENG

V5.1 **BSENG—Common 1st Year**

BSENG—Year 1 Phase In

BSENG 1st Year

1A 1B

1	SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC
2	PHYS122 Basic Science PHYS122 SCIENCE	PHYS125 Basic Science PHYS125 SCIENCE
3	LA Linear algebra MATH133 MATH	CHEM150 Basic Science CHEM150 SCIENCE
4	CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH
5	MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC
6		ENGL English ENGL115 ENGL

BSENG—Steady State

BSENG 1st Year

1A 1B

SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC
PHYS126 Basic Science PHYS126 (new) SCIENCE	CHEM150 Basic Science CHEM150 SCIENCE
LA Linear algebra MATH133 MATH	WE Web engineering SENG130 SENG
CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH
MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC
	ENGL English ENGL115 ENGL

V5.1 BSENG—Common 1st Year

BSENG—Year 1 Phase In	
BSENG	1st Year
1A	1B
1	<div>SE1SE2</div> <div>Intro to OO & SE CSC110</div> <div>CSC</div> <div>OO Design&Methods CSC160</div> <div>CSC</div>
2	<div>PHYS122PHYS125</div> <div>Basic Science PHYS122</div> <div>SCIENCE</div> <div>Basic Science PHYS125</div> <div>SCIENCE</div>
3	<div>LA</div> <div>Linear algebra MATH133</div> <div>MATH</div> <div>CHEM150</div> <div>Basic Science CHEM150</div> <div>SCIENCE</div>
4	<div>CALC1</div> <div>Calculus 1 MATH100</div> <div>MATH</div> <div>CALC2</div> <div>Calculus 2 MATH101</div> <div>MATH</div>
5	<div>MECHSYS</div> <div>Mechanical systems MECH141</div> <div>MECH</div> <div>ELECSYS</div> <div>Electrical systems ELEC199</div> <div>ELEC</div>
6	<div>ENGL</div> <div>English ENGL115</div> <div>ENGL</div>

BSENG—Steady State	
BSENG	1st Year
1A	1B
SE1 Intro to OO & SECSC110	SE2 OO Design&MethodsCSC160
CSC	CSC
PHYS126 Basic Science PHYS126 (new)	CHEM150 Basic Science CHEM150
SCIENCE	SCIENCE
LA Linear algebra MATH133	WE Web engineering SENG130
MATH	SENG
CALC1 Calculus 1 MATH100	CALC2 Calculus 2 MATH101
MATH	MATH
MECHSYS Mechanical systems MECH141	ELECSYS Electrical systems ELEC199
MECH	ELEC
	ENGL English ENGL115
	ENGL

ECE/CENG—Steady State	
ECE/CENG Cal p. 77	
1A	1B
SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC
PHYS126 Basic Science PHYS126 (new)	CHEM150 Basic Science CHEM150
SCIENCE	SCIENCE
LA Linear algebra MATH133	WE Web engineering SENG130
MATH	SENG
CALC1 Calculus 1 MATH100	CALC2 Calculus 2 MATH101
MATH	MATH
MECHSYS Mechanical systems MECH141	ELECSYS Electrical systems ELEC199
MECH	ELEC
	ENGL English ENGL115
	ENGL

MECH—Steady State	
MECH	Cal p. 79
1A	1B
SE1	SE2
Intro to OO & SE CSC110	OO Design&Methods CSC160
CSC	CSC
PHYS126	CHEM150
Basic Science PHYS126 (new)	Basic Science CHEM150
SCIENCE	SCIENCE
LA	WE
Linear algebra MATH133	Web engineering SENG130
MATH	SENG
CALC1	CALC2
Calculus 1 MATH100	Calculus 2 MATH101
MATH	MATH
MECHSYS	ELECSYS
Mechanical systems MECH141	Electrical systems ELEC199
MECH	ELEC
	ENGL
	English ENGL115
	ENGL

CSC—Steady State		
CSC	Cal p. 74	
1A	1B	
SE1	SE2	
Intro to OO & SE	OO Design&Methods	
CSC110	CSC115	
CSC	CSC	
	DS1	
	Discrete math&logic	
	MATH122	
	MATH	
	CSCSYS	WE
	Overview of CSC	Web engineering
	CSC212	SENG130
	CSC	OR
		SENG
CALC1	CALC2	
Calculus 1	Calculus 2	
MATH100	MATH101	
MATH	MATH	
	ENGL	
	English	
	ENGL115/135	
	ENGL	

Declare SENG130 and CSC212 equivalent

V5.1 Software Engineering Degree program (SEDP)—New, changed, and existing courses

	1A	1B	2A	2B	3A	3B	4A	4B
1	SE1 Intro to OO & SE CSC110 CSC	SE2 OO Design&Methods CSC160 CSC	SE3 Architecture&Methods SENG221 (new) SENG	SE4 Systems Programming SENG265 SENG	SE5 Requirements&Specific Software evolution SENG321 (new) SENG	SE6 Software evolution SENG371 (new) SENG	SE7 Embedded systems SENG421 (new) SENG	SE8 SWQuality Engineering SENG471 (new) SENG
2	MECHSYS Mechanical systems MECH141 MECH	ELECSYS Electrical systems ELEC199 ELEC	CAS CompArch&Assem CSC230 CSC	ALG1 Algos & data structs CSC 225 CSC	DD Digital Design CSC355 CSC/CENG/ELEC	AFL Foundations CSC 320 CSC	Elective	CAPB Design Project SENG499 (new) SENG
3	LA Linear algebra MATH133 MATH	WE Web engineering SENG130 (new) SENG	PS Probability&Statistics STAT 260 MATH	HCI Human-comp interacti SENG310 SENG	OSDC Operating systems CSC360 CSC	DB Databases CSC370 CSC	NET Networks CSC450/CENG460 CSC/CENG/ELEC	RT Real-time systems CENG455/CSC460 CSC/CENG
4	CALC1 Calculus 1 MATH100 MATH	CALC2 Calculus 2 MATH101 MATH	SYSDDYN System Dynamics ELEC255 (new) CENG/ELEC	SAS Signals and Systems ELEC265 (new) CENG/ELEC	CTRL Control Systems ELEC361 (new) CENG/ELEC	SEC Security Engineering SENG372 (new) SENG	Elective	Elective
5	PHY Basic Science Phys126 (new) SCIENCE	CHE Basic Science CHEM150 SCIENCE	DS1 Discrete math&logic MATH122 MATH	DS2 Discrete math&logic MATH222 MATH	BSC5 Basic Science BIOC102 SCIENCE	BSC6 Basic Science EOS110 SCIENCE	Elective	Elective
6		ENGL English ENGL115 ENGL	TECHWRT Technical writing ENGR240 ENGR	BUS1 Economics & Entrepren ENGR281 (new) BUS	BUS2 COM241 (new) BUS	CST5 Elective MISC	FE Free Elective Any faculty MISC	SOCIAL Social&prof issues SENG401 (new) SENG

Legend	
New	22
Changed	7
Unchanged	46
Total	76
Required	Elective
Black type	Blue type
For more details, click here	
Refer to appendices about	

SE Software Engineering	LA Linear algebra
CST Complementary Studies (7 needed)	WE Web engineering
BSC Basic Science (6 needed)	MECHSYS Mechanical systems
DS Discrete Structures & Logic	ELECSYS Electrical systems
ALG Algorithms	BUS Business
AFL Automata and Formal Languages	DB Data bases
CTRL Automatic Control Engineering	OSNET Operating systems & networks
SOCIAL Social and Professional Issues	PS Probability and statistics
SAS Signal analysis & systems	HCI Human-computer interaction
CAS Computer architecture & assembler	CALC Calculus
DD Digital design	CAP Capstone project

Engineering

Electives							
CAPA Design Project SENG499 (new) SENG	ARCH Software architecture SENG422 SENG	CBSE Software components SENG454 (new) SENG	FTC Fault-tolerant computin CSC454 CSC	CC Compiler constructions CSC435 CSC	SP Software Process SENG472 SENG	TOP Topics in SE SENG480 SENG	
ALG2 Algos Analysis CSC 326 CSC	ALG3 Analysis of Algos CSC425 CSC	CG Computer Graphics CSC405 CSC	MMS Multimedia systems SENG410/CSC461/EL CSC/CENG	PL Prog. Languages CSC330 CSC	AOOD Advanced OO Design SENG430 SENG	TOP Topics in CSC CSC485 CSC	
IKM Info&knowldg mgmt SENG315 (new) SENG	NC Netcentric-computing SENG450 SENG	CON Concurrency CSC464 (new) CSC	DC Distributed computing SENG462/CSC462 SENG	CSCW Collaborative work SENG435 (new) SENG	MSD Management of SD SENG470 SENG	TOP Topics in CENG CENG496 CENG	
DSP Digital Signal Processi ELEC310 CENG/ELEC	COM Communications ELEC350 CENG/ELEC	WMC Wireless&Mobile Com ELEC441 (new) CENG/ELEC	AI Artificial Intelligence CENG420 CENG/ELEC	PATREC Pattern Recognition ELEC485 CENG/ELEC	MIN Data mining SENG474 (new) SENG	TOP Topics in ELEC ECE496 ELEC	
NA Numerical analysis CSC349A/CSC340 CSC	ORLP OR & Lin. Programming CSC448A CSC	ORSIM OR & Simulation CSC448B CSC	CSA Systems&Architecture CENG450 CENG	MICRO Microprocessor System CENG355 CENG	ERGO Ergonomics SENG412 SENG	ROBOT Robotics ELEC426/MECH430 MECH/ECE	

Existing SENG courses to be deleted

SENG424	Reliability (absorbed into security)
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SENG Courses absorbed into SE3-8

SENG265	Introduction to SE
SENG330	OO Software Development
SENG365	Software Development I
SENG420	Software Evolution
SENG440	Embedded Systems
SENG465	Advanced Software Development

Faculty of Engineering, University of Victoria
Bachelor of Software Engineering (BSENG)
Prerequisite Structure

