

UNIVERSITY OF NEW BRUNSWICK  
SOFTWARE ENGINEERING MATRIX

Start in 2014-15

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6	TERM 7	TERM 8
MATH 1003 Intro to Calculus I (4-0-0)	MATH 1013 Intro to Calculus II (4-0-0)	CS 2043 Software Eng. I (3-1*-2)	CS 2333 Computability & Formal Languages (3-1-0)	CS 2253** Machine Level Programming (3-0-2)	SWE 4403 <sup>(b)</sup> Software Architectu and Design Patterns (3-0-3)	SWE 4040 Design Project (1*-0-6)	
MATH 1503 Intro to Linear Algebra (4-0-0)	CS 1003 * Int. to Computer Programming (3-1-3*)	CS 1303 Discrete Structures (3-1-0)	INFO 1103 <sup>(a)</sup> Data & Information Management (3-0-3)	CS 2383 *** Data Structures & Algorithms (3-1-0)	CS 3613 Programming Languages (3-1-0)	SWE 4103 or 4203 Software Quality OR Software Evolution (3-0-3*)	ECE3812 or CS387 Data Comm. and Networking (3-0-3*)
CS 1073 Computer Prog. I (in Java) (3-2-0)	CS 1083 Computer Prog. II (in Java) (3-2-0)	ECE 2213 Digital Systems I (3-1-3*)	ECE 2412 or CS31 Simulation and Engineering Analysis (3-1-2)	ECE 3221 Computer Organization (3-1-3*)	CS 3503 Systems Analysis, Design & Proj. Mgmt. (3-1-0)	CS 3383 **** Algorithm Design & Analysis (3-1-0)	TE
PHYS 1081 ***** Foundations of Physics for Engineers (3-0-3)	ECE 1813 Electricity and Magnetism (3-1-3*)	ECE 2701 Electric Circuits and Electronics (3-1-3*)	CSE Eng. Economics (CE 3963/ME 3232) (3-0-0)	SWE 4103 or 4203 Software Quality OR Software Evolution (3-0-3*)	ECE 3232 Embedded Systems Design (3-0-2) (replaces ME2613)	CS 3413 Operating Systems I (3-0-2)	TE
ENGG 1003 Technical Communications (2-0-3)	CHEM 1982 + CHEM 1987 Chemistry (3-0-3)	BAS SCI	BAS SCI	CSE Humanities & Social Sciences	ECE 3242 Computer Architecture (3-1-3*)	TE	CSE open
ENGG 1015 Design & Problem Solving (1-0-2)		STAT 2593 Probability & Statistics ((3-0-0)	CSE Impact of Technolog on Society				ENGG 4013 Law & Ethics (3-0-0)
ENGG 1001 Lecture Series							
	20	24	21	19	20	20	21

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\* Replaced APSC 1023 Mechanics II in 2009

\*\*\*\*\* Replaced APSC 1013 Mechanics I in 2010

Total Ch: 166

CSE - Complementary Studies Elective; see [www.cs.unb.ca/~bgn/swe](http://www.cs.unb.ca/~bgn/swe) for more info on CSEs

TE - Technical Elective

BAS SCI Basic Science Elective

\*\* Replaced CS 2023 Proc. Program Dev. in 2010

\*\*\* Replaced CS 3323 Int. to Data Structures in 2010

\*\*\*\* Replaced CS 3933 Algorithms in 2010

(a) Replaced INFO 2103 in 2011, which replaced CS 2533 in 2008

(b) Replaced CS 3043 in 2012

Updated: March 26, 2014