

**UNIVERSITY OF NEW BRUNSWICK  
SOFTWARE ENGINEERING MATRIX**

Start in 2015-2016

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6	TERM 7	TERM 8
<b>MATH 1003</b> Intro to Calculus I (4-0-0) 3	<b>MATH 1013</b> Intro to Calculus II (4-0-0) 3	<b>CS 2043</b> Software Eng. I (3-1*-2) 4	<b>CS 2333</b> Computability & Formal Languages (3-1-0) 4	<b>CS 2253**</b> Machine Level Programming (3-0-2) 4	<b>SWE 4403<sup>(b)</sup></b> Software Architectu and Design Patterns (3-0-3) 4	<b>SWE 4040</b> Design Project (1*-0-6) 4	
<b>MATH 1503</b> Intro to Linear Algebra (4-0-0) 3	<b>CS 1003 *</b> Int. to Computer Programming (3-1-3*) 4	<b>CS 1303</b> Discrete Structures (3-1-0) 4	<b>INFO 1103<sup>(a)</sup></b> Data & Information Management (3-0-3) 4	<b>CS 2383 ***</b> Data Structures & Algorithms (3-1-0) 4	<b>CS 3613</b> Programming Languages (3-1-0) 4	<b>SWE 4103 or 4203</b> Software Quality OR Software Evolution (3-0-3*) 4	<b>ECE3812 or CS387</b> Data Comm. and Networking (3-0-3*) 4
<b>CS 1073</b> Computer Prog. I (in Java) (3-2-0) 4	<b>CS 1083</b> Computer Prog. II (in Java) (3-2-0) 4	<b>ECE 2214 *****</b> Digital Logic Design (3-0-3*) 4	<b>ECE 2412 or CS31</b> Simulation and Engineering Analysis (3-1-2) 4	<b>ECE 3221</b> Computer Organization (3-1-3*) 4	<b>CS 3503</b> Systems Analysis, Design & Proj. Mgmt. (3-1-0) 4	<b>CS 3383 ****</b> Algorithm Design & Analysis (3-1-0) 4	TE 4
<b>PHYS 1081 *****</b> Foundations of Physics for Engineers (3-0-3) 5	<b>ECE 1813</b> Electricity and Magnetism (3-1-3*) 4	<b>ECE 2701</b> Electric Circuits and Electronics (3-1-3*) 4	<b>CSE</b> Eng. Economics (CE 3963/ME 3232) (3-0-0) 3	<b>SWE 4103 or 4203</b> Software Quality OR Software Evolution (3-0-3*) 4	<b>ECE 3232</b> Embedded Systems Design (3-0-2) 4 <small>(replaces ME2613)</small>	<b>CS 3413</b> Operating Systems I (3-0-2) 4	TE 4
<b>ENGG 1003</b> Technical Communications (2-0-3) 4	<b>CHEM 1982 + CHEM 1987</b> Chemistry (3-0-3) 5	<b>BAS SCI</b> 5	<b>BAS SCI</b> 5	<b>CSE</b> Humanities & Social Sciences 3	<b>ECE 3242</b> Computer Architecture (3-1-3*) 4	TE 4	<b>CSE open</b> 3
<b>ENGG 1015</b> Design & Problem Solving (1-0-2) 2		<b>STAT 2593</b> Probability & Statistics (3-0-0) 3	<b>CSE</b> Impact of Technolo on Society 3				<b>ENGG 4013</b> Law & Ethics (3-0-0) 3
<b>ENGG 1001</b> Lecture Series 21		<b>ECE 2215</b> Digital Logic Lab 1					
21	20	24	21	19	20	20	21

Total Ch: 166

CSE - Complementary Studies Elective  
TE - Technical Elective  
BAS SCI Basic Science Elective

\* Replaced APSC 1023 Mechanics II in 2009  
\*\* Replaced CS 2023 Proc. Program Dev. in 2010  
\*\*\* Replaced CS 3323 Int. to Data Structures in 2010  
\*\*\*\* Replaced CS 3933 Algorithms in 2010  
\*\*\*\*\* Replaced APSC 1013 Mechanics I in 2010  
\*\*\*\*\* Replaced ECE 2213 by ECE 2214 + ECE 2215 in 2015

(a) Replaced INFO 2103 in 2011,  
which replaced CS 2533 in 2008  
(b) Replaced CS 3043 in 2012

See <http://www.unb.ca/fredericton/jp/swe/current/index.html>  
for more info on CSE and BAS SCI

Updated: March 13, 2015