



**SOFTWARE ENGINEERING
COURSE EQUIVALENTS
1998 Edition**

University of Alberta

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98-Soft-A1 Data Structures

CMPUT 115 Programming with Data Structures

&

CMPUT 204 Algorithms I

CPSC 331 Information Structures

98-Soft-A2 Digital Computer Architecture

EE 280 Introduction to Digital Electronics

&

EE 380 Introduction to Microprocessors

&

CMPE 382 Computer Architecture

ENEL 353 Digital Circuits

ENCM 369 Computer Organization

OR the following CPSC sequence

OR the following CMPUT sequence

CPSC 321 Introduction to Logic Circuit Design

CMPUT 229 Computer Organization and Architecture I

&

CMPUT 329 Computer Organization and Architecture II

CPSC 401 Computer Structure I

98-Soft-A3 Operating Systems

CMPUT 379 Operating System Concepts

CPSC 457 Principles of Operating Systems

98-Soft-A4 Design and Analysis of Algorithms

CMPUT 204 Algorithms I

&

CMPUT 304 Algorithms II

CPSC 413 Design and Analysis of Algorithms I

OR

CPSC 517 Design and Analysis of Algorithms II

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98-Soft-A5**Software Design**CMPE 300 Introduction to Software
Engineering Process

SENG 311

Principles of Software
Engineering**OR**CMPUT 401 Software process and
Product Management

SENG 411

Human and Organizational
Aspects in Software
Engineering**98-Soft-A6****File and Database Systems**CMPUT 291 Introduction to File and
Database Management

CPSC 461

File Processing

CPSC 471

Data Base Management
Systems**98-Soft-A7****Object-Oriented Analysis, Design, and Programming**CMPUT 401 Software Process and
Product Management

SENG 311

Principles of Software
Engineering**&/OR**CMPUT 425 Object-Oriented
Programming Languages**98-Soft-B1****Real Time Systems**

CMPE 401 Computer Interfacing

ENCM 491

Real-Time Systems Design

98-Soft-B2**Advanced Object-Oriented Analysis and Design**

CMPUT 401 Software Process

SENG 411

Human and Organizational
Aspects in Software
Engineering

&

CMPUT 402 Software Quality

SENG 443

Software Architectures

98-Soft-B3**Analysis and Design of User Interfaces**CMPUT 301 User Interfaces and Software
Design

CPSC 481

Principles and Design of
Human-Computer Interaction

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98-Soft-B4	Software Project Management		
CMPE 310	Software Engineering Project I	SENG 411	Human and Organizational Aspects in Software Engineering
&			
CMPE 410	Software Engineering Project II	ENSF 583	Fourth Year Software Engineering Team Design Project, Part A
		ENSF 589	Fourth Year Software Engineering Team Design Project, Part B
98-Soft-B5	Software Development for Large-Scale Systems		
CMPE 310	Software Engineering Project I	SENG 411	Human and Organizational Aspects in Software Engineering
&			
CMPE 410	Software Engineering Project II	SENG 421	Software Metrics
		SENG 521	Software Reliability and Testing
98-Soft-B6	Computer Communications Networks		
CMPUT 313	Telecommunications and Computers	CPSC 441	Computer Communications
98-Soft-B7	Security in Computing		
	No Course Equivalent		No Course Equivalent
98-Soft-B8	Software Evolution and Reengineering		
CMPE 410	Software Engineering Project II		No Course Equivalent
98-Soft-B9	Computer Graphics		
CMPUT 411	Introduction to Computer Graphics	CPSC 453	Computer Graphics I
		OR	
		CPSC 407	Computer Visualization and Graphics
98-Soft-B10	Artificial Intelligence and Expert Systems		
CMPUT 366	Artificial Intelligence Applications	CPSC 533	Artificial Intelligence

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98-Soft-B11	Distributed Systems		
CMPUT 507	Parallel Programming		No Course Equivalent
98-Soft-B12	Introduction to Compilers		
CMPUT 415	Compiler Design	CPSC 411	Compiler Construction
98-Soft-B13	Foundations of Modeling and Simulations		
	No Course Equivalent		No Course Equivalent
98-Soft-B14	Imaging Processing		
EE 602	Image Processing		No Course Equivalent
98-Soft-B15	Parallel Computing		
EE 654 SIMD	Parallel Processor Architectures and Applications		No Course Equivalent
&/OR			
EMPUT 507	Parallel Programming		
98-Soft-B16	Microprocessor-Based Systems		
EE 380	Introduction to Microprocessors	ENCM 415	Assembly Language Programming and Interfacing
&/OR			
EE 582	Design of Microprocessor-based Systems		
98-Soft-B17	Software Quality Engineering		
	No Course Equivalent	SENG 411	Human and Organizational Aspects in Software Engineering
		SENG 521	Software Reliability and Testing

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