



The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

**CHEMICAL ENGINEERING
COURSE EQUIVALENTS
2011 EDITION**

<i>University of Alberta</i>		<i>University of Calgary</i>	
04-CHEM-A1 Process Balances and Chemical Thermodynamics			
CME 265	Process Analysis	ENCH 315	Chemical Engineering Process Calculation
&		&	
CHE 343	Chemical Engineering Thermodynamics	ENCH 427	Chemical Engineering Thermodynamics
04-CHEM-A2 Mechanical and Thermal Operations			
CHE 312	Fluid Mechanics	ENCH 331	Process Fluid Dynamics
&		&	
CHE 314	Heat Transfer	ENCH 403	Heat Transfer
04-CHEM-A3 Mass Transfer Operations			
CHE 318	Mass Transfer	ENCH 405	Separation Processes I
&		&	
CHE 416	Equilibrium Stage Processes	ENCH 505	Separation Processes II
04-CHEM-A4 Chemical Reactor Engineering			
CHE 345	Chemical Reactor Analysis I	ENCH 421	Chemical Engineering Kinetics
04-CHEM-A5 Chemical Plant Design and Economics			
CHE 464	Chemical Engineering Design I	ENCH 423	Chemical Engineering Process Development
04-CHEM-A6 Process Dynamics and Control			
CHE 446	Process Dynamics and Control	ENCH 429	Process Dynamics and Control
04-CHEM-B1 Transport Phenomena			
No equivalent course offered		ENCH 501	Transport Phenomena
04-CHEM-B2 Environmental Engineering			
CHE 482	Environmental Impact of the Process Ind.	ENEE 505	Effluent Treatment Processes for Energy Industry
04-CHEM-B3 Simulation, Modelling, and Optimization			
CHE 572	Modelling Process Dynamics	ENCH 627	Chemical Process Simulation

<i>University of Alberta</i>		<i>University of Calgary</i>	
04-CHEM-B4 Biochemical Engineering			
CHE 484	Introduction to Biochemical Engineering	ENCH 535	Principles of Biochemical Engineering
or			
CHE 486	Microbial Processes in Engineering		
04-CHEM-B5 Pulp and Paper Technology			
No equivalent course offered		No equivalent course offered	
04-CHEM-B6 Petroleum Refining and Petrochemicals			
CH 522	Fundamentals of Oilsands Upgrading	ENCH 503	Upgrading and Refining Processes
04-CHEM-B7 Extractive Metallurgy			
CME 472	Extractive Metallurgy	No equivalent course offered	
04-CHEM-B8 Polymer Engineering			
CME 482	Fundamentals of Polymers	ENCH 539	Polymer Engineering
CME 484	Polymer Processing		
04-CHEM-B9 Advanced Materials			
MATE 495	Nanomaterials and Biomedical Applications	No equivalent course offered	
04-CHEM-B10 Life Cycle Assessment			
No equivalent course offered		ENEE 503	Life Cycle Assessment
		or	
		ENEN 693	Life Cycle Assessment
04-CHEM-B11 Fundamental Reservoir Engineering			
PET E 373	Fundamentals of Reservoir Engineering	ENPE 523	Introduction to Reservoir Engineering
04-CHEM-B12 Petroleum Production Operations			
CHE 534	Fundamentals of Oilsands Extraction	ENPE 533	Petroleum Production Engineering