



**CHEMICAL ENGINEERING
COURSE EQUIVALENTS
2004 Edition**

University of Alberta

University of Calgary

04-CHEM-A1 Process Balances & Chemical Thermodynamics

CH E 265	Process Analysis	ENCH 315	Chemical Engineering Process Calculation
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CH E 343	Chemical Engineering Thermodynamics	& ENCH 427	Chemical Engineering Thermodynamics

04-CHEM-A2 Mechanical & Thermal Operations

CH E 312	Fluid Mechanics	ENCH 331	Process Fluid Dynamics
&		&	
CH E 314	Heat Transfer	ENCH 403	Heat and Mass Transfer

04-CHEM-A3 Mass Transfer Operations

CH E 316	Equilibrium Stage Processes	ENCH 405	Separation Processes I
&		&	
CH E 418	Diffusion Operations	ENCH 505	Separation Processes II

04-CHEM-A4 Chemical Reactor Engineering

CH E 434	Chemical Reactor Analysis	ENCH 521	Chemical Engineering Kinetics
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04-CHEM-A5 Plant Design and Economics

CH E 365	Chemical Engineering Design I	ENCH 423	Chemical Engineering Processing Development
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04-CHEM-A6 Process Dynamics and Control

CH E 446	Process Dynamics & Control	ENCH 529	Process Dynamics and Control
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04-CHEM-B1 Transport Phenomena

CH E 312	Fluid Mechanics	ENCH 631	Fundamentals of Transport Phenomena
&			
CH E 314	Heat Transfer		
&			
CH E 418	Diffusion Operations		

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04-CHEM-B2 Environmental EngineeringCH E 502 Environmental Impact of the
Process Industries

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CIV E 321 Principles of Environmental
Modelling and Risk

&

CIV E 421 Processes for Public Health
and Environmental
ProtectionENCH 643 Environmental Engineering
Aspects of Water and Soil
Pollution

&

ENCH 645 Environmental Engineering
Aspects of Air Pollution**04-CHEM-B3 Simulation, Modelling and Optimization**

CH E 555 Process Optimization

&

CH E 572 Process Modelling and
Simulation

ENCH 501

&

ENCH 627 Chemical Process Simulation

04-CHEM-B4 Biochemical EngineeringCH E 390 Introduction to Biochemical
EngineeringENCH 535 Principles of Biochemical
Engineering**04-CHEM-B5 Pulp and Paper Technology**CH E 580 Pulp and Paper Manufacture,
Chemical Engineering, and
Environmental Impact

No Course Equivalent

04-CHEM-B6 Petroleum Refining and PetrochemicalsCH E 522 Hydrocarbon Fluid Properties
and ProcessingENCH 503 Upgrading and Refining
Processes**04-CHEM-B7 Extractive Metallurgy**MAT E 430 Hydrometallurgy and
Electrometallurgy

No Course Equivalent

04-CHEM-B8 Polymer Engineering

CH E 538 Polymer Reactor Engineering

&

CH E 539 Introduction to Polymer
Science & Technology

ENCH 539 Polymer Engineering

04-CHEM-B9 Advanced Materials

No Course Equivalent

No Course Equivalent

04-CHEM-B10 Life Cycle Assessment (LCA)

No Course Equivalent

No Course Equivalent

04-CHEM-B11 Fundamental Reservoir Engineering (98-Pet-A3)

PET E 473 Fundamental Reservoir
Engineering

ENPE 523 Reservoir Engineering I

04-CHEM-B12 Petroleum Production Operations (98-Pet-A5)

PET E 366 Petroleum Production
Operations

ENPE 533 Petroleum Production
Engineering

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