



The Association of Professional  
Engineers and Geoscientists of Alberta

**CIVIL ENGINEERING  
COURSE EQUIVALENTS  
2016 EDITION**

<i>University of Alberta</i>		<i>University of Calgary</i>	
<b>16-CIV-A1</b> CIV E 372	<b>Elementary Structural Analysis</b> Structural Analysis I	ENCI 451 & ENCI 551	Structural Engineering I  Structural Engineering II
<b>16-CIV-A2</b> CIV E 374 & CIV E 474	<b>Elementary Structural Design</b> Structural Design I  Structural Design II	ENCI 513 & ENCI 557	Structural Concrete Design  Structural Steel Design
<b>16-CIV-A3</b> CivE 221	<b>Elementary Environmental Engineering</b> Environmental Engineering Fundamentals	ENCI 481	Environmental Engineering I
<b>16-CIV-A4</b> CIV E 381 & CIV E 391	<b>Geotechnical Materials and Analysis</b> Soil Mechanics  Civil Engineering Materials	ENCI 423 & ENCI 413	Geotechnical Engineering I  Introduction to Civil Engineering Materials
<b>16-CIV-A5</b> CIV E 331	<b>Hydraulic Engineering</b> Applied Hydraulics	ENCI 402	Hydraulics
<b>16-CIV-A6</b> CIV E 315	<b>Highway Design, Construction, and Maintenance</b> Transportation Engineering	ENCI 473 & ENCI 575	Transportation Engineering I  Transportation Engineering II
<b>16-CIV-B1</b> CIV E 660	<b>Advanced Structural Analysis</b> Advanced Structural Analysis	ENCI 621	Computer Analysis of Structures
<b>16-CIV-B2</b> CIV E 670 OR CIV E 672 OR CivE 474 & CivE 479	<b>Advanced Structural Design</b> Behaviour and Design of Steel Members  Behaviour and Design of Concrete Members  Structural Design II  Structural Design III	ENCI 623	Behaviour of Reinforced Concrete Members
<b>16-CIV-B3</b> CIV E 489	<b>Geotechnical Design</b> Geotechnical Design	ENCI 523	Geotechnical Engineering II
<b>16-CIV-B4</b>	<b>Engineering Hydrology</b> <i>No Course Equivalent Offered</i>	ENCI 510	Hydrology
<b>16-CIV-B5</b> CIV E 430 & CIV E 431	<b>Water Supply and Wastewater Treatment</b> Water Resources Engineering  Water Resources Engineering Design	ENCI 581	Environmental Engineering II
<b>16-CIV-B6</b>	<b>Urban and Regional Planning</b> <i>No Course Equivalent Offered</i>	ENCI 502	Civil Engineering Aspects of Sustainable Communities

<b>University of Alberta</b>		<b>University of Calgary</b>	
<b>16-CIV-B7</b>	<b>Transportation Planning and Engineering</b>		
CIV E 411 & CIV E 419	Transportation Engineering II Transportation Engineering, Planning and Design	ENCI 473	Transportation Engineering I
<b>16-CIV-B8</b>	<b>Management of Construction</b>		
CIV E 406 & CIV E 409	Construction Estimating Planning and Control Construction Methods	ENCI 565	Project Management II
<b>16-CIV-B9</b>	<b>The Finite Element Method</b>		
CIV E 665	Introduction to Finite Element Analysis	ENCI 651 OR ENCI 655	Finite Element Modelling Numerical Methods for Modelling Geomaterials
<b>16-CIV-B10</b>	<b>Traffic Engineering</b>		
CIV E 315	Transportation Engineering		<i>No Course Equivalent Offered</i>
<b>16-CIV-B11</b>	<b>Structural Materials</b>		
CIV E 391	Civil Engineering Materials		<i>No Course Equivalent Offered</i>
<b>16-CIV-B12</b>	<b>Risk and Safety in Civil Engineering</b>		
CIV E 779	Structural Reliability	ENCI 504	Risk and Safety in Civil Engineering
<b>16-CIV-B13</b>	<b>Numerical Methods</b>		
CIV E 295	Civil Engineering Analysis II		<i>No Course Equivalent Offered</i>
<b>16-CIV-B14</b>	<b>Open Channel Hydraulics</b>		
	<i>No Course Equivalent Offered</i>		<i>No Course Equivalent Offered</i>
<b>16-CIV-B15</b>	<b>Coastal Engineering</b>		
	<i>No Course Equivalent Offered</i>		<i>No Course Equivalent Offered</i>
<b>16-CIV-B16</b>	<b>Advanced Environmental Engineering</b>		
CIV E 429 OR CIV E 321 OR EnvE 421	Environmental Engineering Design Principles of Environmental Modeling and Risk Municipal Systems	ENCI 581	Environmental Engineering II
<b>16-CIV-B17</b>	<b>Intelligent Transportation Systems</b>		
CIV E 613	Transportation Systems and Demand Analysis	ENCI 703	Fundamentals of ITS and Transportation System Performance
<b>16-CIV-B18</b>	<b>Geomatics</b>		
	<i>No Course Equivalent Offered</i>		<i>No Course Equivalent Offered</i>
<b>16-CIV-B19</b>	<b>Foundation Engineering</b>		
CIV E 669	Advanced Foundation Engineering	ENCI 671	Advanced Foundation Engineering
<b>16-CIV-B20</b>	<b>Building Engineering and Services</b>		
CivE 779	Building Systems Design		<i>No Course Equivalent Offered</i>
<b>16-CIV-B21</b>	<b>Advanced Structural Mechanics</b>		
CIV E 398	Introduction to Continuum Mechanics		<i>No Course Equivalent Offered</i>
<b>16-CIV-B22</b>	<b>Dynamics of Engineering Structures</b>		
CIV E 661	Dynamics of Structures	ENCI 639	Structural Dynamics

**Updated June 2022**