

**Courses Offered for the University of Manitoba/RRC
CIVIL Engineering Hybrid Pathway**

UM University Course		Credit Hours	Red River College Equivalent			Comments
			Mun.	Struct	Environ.	
Course Code	Course Name					
YEAR 1						
CHEM1300	University Chemistry 1	3				
ENGL 1340	Int. Literary Analysis	3				
MATH 1510 or 1500	Applied Calculus 1	3	CIVL 2001	CIVL 2001	CIVL 2001	CIVL 2001 = MATH 1500
COMP 1012	Computing for Engrs.	3				
PHYS 1050	Physics – Mechanics	3				
MATH 1210	Tech. of Classical/Lin Algebra	3				
MATH 1710	Applied Calculus 2	3				
	CSE – Yr1 Arts or Mgmt	3	CIVL 1020	CIVL 1020	CIVL 1020	CIVL 1020 = PHIL 2XXX Level 2000 Philosophy
ENG 1440	Intro to Statics	3				
ENG 1460	Intro. Thermal Sciences	3				
ENG 1430	Design in Engineering	3				
ENG 1450	Intro. To Elect & Comp Tech	3				
YEAR 2						
ENG 2030 or 2040	Engineering Communication	3	CIVL 1016 + CIVL 2027 + CIVL 3014	CIVL 1016 + CIVL 2027 + CIVL 3018	CIVL 1016 + CIVL 2027 + CIVL 3005	Credit given for ENG 2030
MATH 2130	Engineering Math Analysis I	3				
MATH 2132	Engineering Math Analysis 2	3				
CHEM 1310	Intro Physical Chemistry	3				
CIVL 2800	Solid Mechanics 1	4				
CIVL 2830	Graphics	2	CIVL 1017	CIVL 1017	CIVL 1017	
CIVL 2840	Civil Engineering Geomatics	3			CIVL 1014 + CIVL 2026 + CIVL 2009	
STAT 2220	Engineering Statistics	3				
CIVL 2770	Civil Engineering Materials	5				
CIVL 2780	CE Systems	4				
CIVL 2790	Fluid Mechanics	4	CIVL 2066	(CIVL 2066)*	(CIVL 2066)*	
CIVL 3590	Numerical Methods	4				
GEOL 2250	Geology for Engineers	4	CIVL 2156			CIVL 2156 = GEOL 1XXX but can be used to satisfy course requirements
YEAR 3						
CIVL 3690	Environmental Engr Analysis	4			CIVL 2020 + CIVL 3008	
CIVL 3730	Geotechnical Materials Anal.	4	CIVL2011 + CIVL3015	CIVL 2015 + CIVL 3021		
CIVL 3750	Hydrology	4				
CIVL 3760	Structural Analysis	4		CIVL 3023		
CIVL 3790	Transportation Engineering 1	4				
CIVL 3700	Environmental Engr. Design	4				
CIVL 3740	Hydraulics	4				
CIVL 3770	Structural Design 1	4				
ENG 3000	Engineering Economics	3	CIVL 3046 or CIVL 3026	CIVL 3046 or CIVL 3026	CIVL 3046 or CIVL 3026	
CIVL 4332	TE #1 – Civil Engineering Thesis Project		CIVC 1044 + CIVL 3014	CIVC 1044 + CIVL 3018	CIVC 1044 + CIVL 3005	
	Technical Elective #2			CIVL 2002 or CIVL 2022		CIVL 2002 or 2022 = BIOE 4560 Structural Design in Wood
	CSE – Yr 1 Arts or Mgmt			CIVL 3582		CIVL 3582 = PHIL 2XXX Transfer 2000 Lvl
Year 4						

CIVL 4220	Geotechnical Design	4			
CIVL 4380	Infrastructure	4			
CIVL 4390	Structural Design 2	4			
CIVI 4400	Transportation Engr 2	4			
ENG 3020	Tech and Society	3			
CIVL 4590	Design Project	6			
	Technical Elective #3				
	Technical Elective #4				
	Technical Elective #5				
Total No. of Courses Transferred			9	10 (11)	8 (9)
Total Number of Credit Hours Transferred					
Approx. total Number of Credit Hours in Program (min.)					

Special Notes: Each student transferring in this program must have CEAB/AU calculations completed to ensure compliance.

All courses must have a minimum grade of B to be credited to the civil engineering program at UM.