



name _____ number _____ date _____

BScE in Geomatics Engineering

Course Sequence & Programme Assessment

for new students, in effect starting 2018/FA and 2019/WI, *see instructions at end of list*

Year One			FA	
Course Number	Course Name	Ch	Credit	Notes
ENGG 1003	Engineering Technical Communications	4		
ENGG 1015	Introduction to Design & Problem Solving	2		
ENGG 1001	Engineering Practice Lectures	0		
GGE 1001	Introduction to Geodesy & Geomatics	5		
MATH 1003	Introduction to Calculus I	3		
MATH 1503	Introduction to Linear Algebra	3		
PHYS 1081	Physics for Engineers	5		
Total Core Credit Hours		22		

Year One			WI	
Course Number	Course Name	Ch	Credit	Notes
CHEM 1982	General Applied Chemistry	3		
CHEM 1987	Gen Applied Chemistry Lab	2		
ECON 1073	Economics for Engineers	3		
ENGG 1082	Mechanics for Engineers	4		
MATH 1013	Introduction to Calculus II	3		
PHYS 1062	Introductory Physics II	3		
PHYS 1092	Experiments in Introductory Physics	2		
Total Core Credit Hours		20		

Year Two			FA	
Course Number	Course Name	Ch	Credit	Notes
CS 1003	Programing and Problem Solving for Engineers	4		
GGE 3423	Introduction to Geographic Information Systems	4		
GGE 3042	Introduction to Global Navigation Satellite Systems	5		
MATH 2513	Multivariable Calculus for Engineers	4		
STAT 2593	Probability and Statistics for Engineers	3		
Total Core Credit Hours		20		

Year Two			WI	
Course Number	Course Name	Ch	Credit	Notes
GGE 2012	Advanced Surveying	4		
GGE 2501	Land Administration I	4		
GGE 3111	Introduction to Adjustment Calculus	5		
GGE 3202	Geodesy I	4		
MATH 3543	Differential Geometry for Geomatics Engineers	3		
GGE 2013	Advanced Surveying Practicum*	4		
Total Core Credit Hours		20+4*		*Practicum ("Survey Camp)

Year Three			FA	
Course Number	Course Name	Ch	Credit	Notes
CS 3113	Introduction to Numerical Methods	3		
GGE 3122	Advanced Adjustment Calculus	4		
GGE 3342	Remote Sensing	5		
GGE 3353	Ocean Mapping	5		
GGE 4512	Land Administration II	3		
Total Core Credit Hours		20		

Year Three			WI	
Course Number	Course Name	Ch	Credit	Notes
CE 3963	Engineering Economy	3		
GGE 3022	Survey Design & Analysis	4		
GGE 4211	Geodesy II	4		
GGE 4313	Airborne Mapping Systems	5		
GGE 4423	Advanced Geographic Information Systems	5		
GGE 3023	Survey Design Practicum*	4		
Total Core Credit Hours		21+4*		*Practicum ("Survey Camp)



name _____ number _____ date _____

Year Four			FA	
Course Number	Course Name	Ch	Credit	Notes
TME 3313	Managing Engineering & IT Projects	3		
GGE 4700	Design Project and Report*	3		
	TE			
	TE			
	CSE			
Total Core Credit Hours		6+ _____	*Full Year Course	

Year Four			WI	
Course Number	Course Name	Ch	Credit	Notes
ENGG 4013	Law and Ethics for Engineers	3		
GGE 4700	Design Project*	3		
	TE			
	TE			
	CSE			
Total Core Credit Hours		6+ _____	*Full Year Course	

TOTALS

Core courses: ___ / ≥ 143 ch
 Technical electives (TE): ___ / ≥ 11 ch
 Complimentary studies electives (CSE): ___ / ≥ 6 ch
 Total: ___ / ≥ 160 ch

Course Number	Course Name	Ch	Semester	Notes
GGE 5011	Oceanography, Tides, and Water Levels	4	FA	
GGE 5012	Marine Geology and Geophysics	4	WI	
GGE 5022	Precision Surveying	4	FA CSO	
GGE 5042	Kinematic Positioning	5	FA	
GGE 5222	Gravity Field in Geomatics	4	WI	
GGE 5242	Global Navigation Satellite Systems for Geodesy	4	WI	
GGE 5322	Digital Image Processing	4	WI	
GGE 5341	Advanced Technologies in Remote Sensing	4	FA	
GGE 5401	Geospatial Development	3	WI	NOT BEING OFFERED
GGE 5402	Geographic Databases	3	FA	NOT BEING OFFERED
GGE 5403	Geospatial Web (online)	3	FA/WI/SU	
GGE 5405	Introduction to Big Data and Data Science	3	WI	
GGE 5521	Survey Law	4	FA CSO	
GGE 5833	Land Use Planning for Geomatics	4	WI CSO	

Technical electives labeled “CSO” are required by the Cadastral Surveying Option.

With prior Departmental approval, other courses may be taken as technical electives. At least one GGE 5000 level course must be done.

COMPLEMENTARY STUDIES ELECTIVES:

Students must complete 6 credit hours of complimentary studies electives:

3 ch from one of: anthropology, classics, literature, history, philosophy, political science, or sociology

3 ch of additional complementary studies courses, preferably from these categories

At least 6 months of work experience should be completed, ideally during the program, and with work term evaluation forms submitted by employers.

Approved Work Experience _____ months [employer _____; y _____]

Approved Work Experience _____ months [employer _____; y _____]

[Total of at least 6 months]

Refer to the Geomatics Engineering programme and course descriptions in the current UNB Undergraduate Calendar.

Enter the letter grade for a course done at UNB. Enter a “T” for any credit transferred. Do either entry only when the course number and credit hours match exactly. Otherwise, leave blank and consult the Director of Undergraduate Studies.