name_____ number_____ date_____

Bachelor of Geomatics

Course Sequence & Programme Assessment

for new students, in effect starting 2022/FA and 2023/WI, *see instructions at end of list*

Year One			FA	
Course Number	Course Name	Ch	Credit	Notes
CS 1003	Programing and Problem Solving for Engineers	4		
GGE 1001	Introduction to Geodesy & Geomatics	5		
GGE 3423	Introduction to Geographic Information Systems	4		
MATH 1003	Introduction to Calculus I	3		
MATH 1503	Introduction to Linear Algebra	3		
Total Core Credit Hours		19		

Year One			WI	
Course Number	Course Name	Ch	Credit	Notes
ECON 1073	Economics for Engineers	3		
GGE 2012	Advanced Surveying	4		
GGE 3202	Geodesy I	4		
GGE 2501	Land Administration I	4		
MATH 1013	Introduction to Calculus II	3		
GGE 2013	Advanced Surveying Practicum*	4		
Total Core Credit Hours		18+4*__		*Practicum (“Survey Camp)

Year Two			FA	
Course Number	Course Name	Ch	Credit	Notes
GGE 3042	Introduction to Global Navigation Satellite Systems	5		
GGE 3342	Remote Sensing	5		
MATH 2513	Multivariable Calculus for Engineers	4		
STAT 2593	Probability and Statistics for Engineers	3		
Total Core Credit Hours		17		

Year Two			WI	
Course Number	Course Name	Ch	Credit	Notes
CE 3963	Engineering Economy	3		
GGE 3111	Introduction to Adjustment Calculus	5		
GGE 4211	Geodesy II	4		
GGE 4423	Advanced Geographic Information Systems	5		
	TE			
Total Core Credit Hours		17		

Year Three			FA	
Course Number	Course Name	Ch	Credit	Notes
GGE 3122	Advanced Adjustment Calculus	4		
GGE 3353	Ocean Mapping	5		
GGE4513(online)	Survey Law I	4		
CS3113	Introduction to Numerical Methods	3		
	TE			
Total Core Credit Hours		15		

Year Three			WI	
Course Number	Course Name	Ch	Credit	Notes
ENGG 4013	Law and Ethics for Engineers	3		
GGE 3022	Survey Design & Analysis	5		
GGE 4313	Airborne Mapping Systems	5		
TME 3313	Managing Engineering & IT Projects	3		
GGE 3023	Survey Design Practicum*	4		
	TE			
	TE			
Total Core Credit Hours		16+4*__		*Practicum (“Survey Camp)

TOTALS

Core courses: ___ / ≥ 111 ch

Technical electives (TE): ___ / ≥ 9 ch

Total: ___ / ≥ 120 ch

name_____ number_____ date_____

Course Number	Course Name	Ch	Semester	Notes
GGE 5011	Oceanography, Tides, and Water Levels	4	FA IHO	
GGE 5012	Marine Geology and Geophysics	4	WI IHO	
GGE 5022	Precision Surveying	4	FA CSO	
GGE 5042	Kinematic Positioning	5	FA	
GGE 5083	Advanced Hydrography Practicum	4	WI IHO	Field course after exams
GGE 5222	Gravity Field in Geomatics	4	WI	
GGE 5242	Global Navigation Satellite Systems for Geodesy	4	FA	If sufficient interest
GGE 5311	Advanced Hydrography	4	WI IHO	
GGE 5322	Digital Image Processing	4	WI	
GGE 5341	Advanced Technologies in Remote Sensing	4	FA	
GGE 5404	Introduction to Online Spatial Data Access and Operations	3	FA/WI/SU	Online (CEL)
GGE 5405	Introduction to Big Data & Data Science	3	WI	
GGE 5410	3D Geographical Information Systems	4	FA	
GGE 5522	Survey Law II (online)	4	WI CSO	
GGE 5833	Land Use Planning for Geomatics	4	WI CSO	

TE courses may be taken any time after the midpoint of your program, and as long as the required TE credit hours are completed successfully before graduation. The time slots shown for these are suggestions of when these might be taken.

Technical electives labeled “CSO” are required for the Cadastral Surveying Option.
Technical electives labeled “IHO” are required for the International Hydrography Organization Category A certification.

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

Refer to the Bachelor of Geomatics 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.