name_____ number_____ date_____

Bachelor of Geomatics

Course Sequence & Programme Assessment

for new students, in effect starting 2025/FA and 2026/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	Calculus I: Differential Calc	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	Calculus II: Integral Calc	3		
GGE 2013 OR GGE 2014	Advanced Surveying Practicum*	4		GGE 2014 offered during the summer term
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		
	TE			
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	4		
GGE 4303	LiDAR Fundamentals	3		
Total Core Credit Hours		19		

Year Three			FA	
Course Number	Course Name	Ch	Credit	Notes
GGE 3122	Advanced Adjustment Calculus	4		
GGE 3353	Ocean Mapping	4		
GGE 3700	Survey Project and Report	3		
GGE 3022	Survey Design & Analysis	5		
GGE 4313	Photogrammetry	4		
Total Core Credit Hours		20		

Year Three			WI	
Course Number	Course Name	Ch	Credit	Notes
ENGG 4013	Law and Ethics for Engineers	3		
TME 3313	Managing Engineering & IT Projects	3		
GGE 3023 OR GGE 3024	Survey Design Practicum*	4		GGE 3024 offered during the summer term
GGE 3700	Survey Project and Report	3		
	TE			
	TE			
	TE			
Total Core Credit Hours		9+4*__		*Practicum (“Survey Camp”)

TOTALS

name_____ number_____ date_____

Core courses: ___ / ≥ 110 ch
Technical electives (TE): ___ / ≥ 13 ch
Total: ___ / ≥ 123 ch

Course Number	Course Name	Ch	Semester	Notes
GGE 4513	Survey Law 1	4	FA CSO	
GGE 5011	Oceanography, Tides, and Water Levels	4	FA	
GGE 5012	Marine Geology and Geophysics	4	WI	
GGE 5022	Precision Surveying	4	WI CSO	
GGE 5042	Kinematic Positioning	5	FA	
GGE 5083	Hydrographic Field Operations	4	WI	Field course after exams
GGE 5222	Gravity Field in Geomatics	4	WI	Online (CEL)
GGE 5242	Global Navigation Satellite Systems for Geodesy	4	FA	NOT being offered this year
GGE 5311	Advanced Hydrography	4	WI	
GGE 5322	Computer Vision: Methods and Implementation	4	WI	
GGE 5341	Machine Learning and AI in Geomatics	4	FA	
GGE 5404	Online Spatial Data Handling	3	FA/WI/SU	Online (CEL)
GGE 5405	Introduction to Big Data & Data Science	3	WI	
GGE 5410	3D Spatial Data Processing	4	FA	
GGE 5522	Survey Law II	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.

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.