

**Minors Available to
Geodesy & Geomatics Engineering Students**

13 October 2017

It is strongly recommend that students interested in taking the Physics Minor notify the advisor for the program using the contact information provided below.

Physics Minor		
Required		
Course Name	Course Number	Credit Hours
Physics For Engineers	PHYS 1081	5
Introductory Physics II	PHYS 1062	3
Experiments in Introductory Physics	PHYS 1092	2
Total Credit Hours		10
Suggested by GGE Department		
Basic Physics Elective Course Names	Course Number	Credit Hours
Quantum Physics	PHYS 2351	3
Mechanics I & Mechanics 2	PHYS 2311, PHYS 2312	4, 3
Research Skills	PHYS 2331	3
Special Relativity	PHYS 3912 \equiv MATH 3463	3
Waves	PHYS 2372	3
Astrophysics	PHYS 3983	3
Methods of Theoretical Physics	PHYS 3331	4
Electromagnetism	PHYS 3322	3
Total of 24 ch including: PHYS 1081, PHYS 1062 & 1092		
Contact: Ben Newling bnewling@unb.ca Phone: 458-7932		

It is strongly recommend that students interested in taking the Math Minor notify the advisor for the program using the contact information provided below.

Math Minor		
Required		
Course Name	Course Number	Credit Hours
Introduction to Calculus I or Enriched Introduction to Calculus	MATH 1003 (or MATH 1053)	3
Introduction to Calculus II or Enriched Introduction to Calculus II	MATH 1013 (or MATH 1063)	3
Introduction to Linear Algebra or Linear Algebra I	MATH 1503 (or MATH 2213)	3
Multivariable Calculus for Engineers	MATH 2513	4
Probability and Statistics for Engineers	STAT 2593	3
Differential Geometry for Geomatics Engineers	MATH 3543	3
Total Credit Hours		19
Suggested by GGE Department		
Course Name	Course Number	Credit Hours
Introduction to Numerical Methods	MATH 3413	3
Linear Algebra II	MATH 3213	3
Combinational Theory	MATH 3333	3
Applied Analysis	MATH 3003	3
Geometry	MATH 3063	3
Probability and Mathematical Statistics II	STAT 3093	3
<p>Total of 24 ch including: MATH 1003, MATH 1013, MATH 1503, MATH 2513, MATH 3543, STAT 2593 Remaining courses must be at the second year level or above, and only a maximum of 6 ch in Statistics count towards the Minor</p> <p>Contact: Mahin Salmani msalmani@unb.ca Phone: 1 506 458 7324</p>		

It is strongly recommend that students interested in taking the Computer Science Minor notify the advisor for the program using the contact information provided below.

Computer Science Minor		
Course Name	Course Number	Credit Hours
Required For Minor		
Introduction to Computer Programing I (in Java)	CS 1073	4
Introduction to Computer Programing II (in Java)	CS 1083	4
Discrete Structures	CS 1303 \equiv MATH 2203	4
Software Engineering I	CS 2043	4
Systems Software Development	CS 2263	4
Data Structures and Algorithms	CS 2383	4
Suggested by GGE Department		
Introduction to Numerical Methods	CS 3113	3
Data Science for Big Data Analytics	CS 2545	3
Programming Languages Laboratory	CS 2613	4
Problem Solving for Programmers	CS 2999	3
Net-Centric Computing	CS 3873	4
Introduction to Mobile Application Development	CS 2063	4
Software Architecture and Design Patterns (Cross-Listed SWE 4403)	CS 4015	4
Big Data Systems	CS 4545	3
<p>Total of 8 approved term courses from CS, INFO, or SWE must be completed, including CS 1073, CS 1083, CS 1303 or MATH 2203, CS 2043, CS 2263, CS 2383. Two other courses must be taken with one course being second year level or above, and the other a third year level or above, and both must be greater than 2 credit hours. Courses such as CS 1003 cannot be used towards the minor.</p> <p style="text-align: center;">Contact: Andrew McAllister andrewm@unb.ca Phone: 1 506 453 5084</p>		

It is strongly recommend that students interested in taking the TME Diploma notify the advisor for the program using the contact information provided below.

Technology Management and Entrepreneurship (TME) Diploma		
Course Name	Course Number	Credit Hours
3 of the following are required For TME Diploma		
Entrepreneurial Finance	TME 3013 (FA,WI)	3
Business Planning and strategy in an Entrepreneurial Environment***	TME 3113 (WI)	3
Quality Management	TME 3213 (FA)	3
Managing Engineering and Informational Technology Projects	TME 3313 (FA, WI)	3
Technology Creativity and Innovation	TME 3413 (FA)	3
Technological Risk and Opportunity	TME 3423 (WI)	3
Two other courses must be chosen from above list or from lists below (DTME, or NON-TME Electives)		
DTME Electives		
Course Name	Course Number	Credit Hours
Introduction to Technology Management	TME 1001(N/O)	3
Marketing Technological Goods and Services	TME 3346 (WI)	3
Experimental Learning- Technology Management and Entrepreneurship	TME 3913 (FA, WI)	3
NON TME Electives		
Financial Accounting	ADM 1213 (FA, WI, O)	3
Principles of Marketing*	ADM 1313 (FA, WI, O)	3
Organizational Behavior	ADM 2513 (FA, WI)	3
Human Resource Management	ADM 2815 (FA, WI, O)	3
Business Law I	ADM 3123 (FA, WI)	3
International Business	ADM 3155 (FA)	3
Management of Information Systems A	ADM 3713 (FA, WI)	3
Professional Selling	ADM 4316 (FA)	3
Customer Satisfaction and Loyalty	ADM 4326 (FA, WI)	3
Operations Management I	ADM 4615 (FA)	3
Construction: Financial & Industry Issues	CE 5612 (WI)	3
Project Management**	CE 5623 (WI)	4
Introduction to Money and Banking	ECON 3103 (FA)	3
Information Tech. and the Canadian Economy	ECON 3505 (FA, WI, O)	3
Technology and Society	HIST 3925 (FA)	3
History of Life Sciences	HIST 3975 (FA)	3
Concepts and Perspectives	IDS 2003 (FA)	3
Introduction to the Math of Finance	MATH 3803 (FA)	3
Politics of Globalization	POLS 1603 (FA, WI, O)	3
Practicing Leadership in Community Projects	RCLP 2001 (WI)	3
Information Society	SOCI 2533 (WI)	3

Technology and Social Change	SOCI 2534 (WI)	3
Technology and Society (STU)	STS 1003 (A, B)	3
Suggested by GGE Department		
Technology and Society	HIST 3925 (FA)	3
History of Life Sciences	HIST 3975 (FA)	3
Politics of Globalization	POLS 1603 (FA, WI, O)	3
Information Society	SOCI 2533 (WI)	3
Technology and Social Change	SOCI 2534 (WI)	3

*Cannot be used with TME 3346

**Cannot be used with TME 3313, N/O (not offered in 2017-18)

***Required for Engineering, and 3 year Bachelor's Degree

Contact:

J. Herbert Smith Centre | University of New Brunswick, Old Head Hall 17 Dineen Drive, Room H225 |
Fredericton, NB E3B 5A3

www.bit.ly/DTME_Apply | tme@unb.ca