University of Manitoba
Faculty of Science
Department of Mathematics

1 Course Details

Course Title & Number	MATH 2160 A01: Numerical Analysis 1
Number of Credit Hours	3
Lecture Times & Days of Week	8:30 am – 9:45 am TR
Location for lectures	BULLER 527
Lab Times & Days of Week	4:30 pm – 5:20 pm W
Location for labs	B01: BULLER 315, B02: BULLER 306
Pre-Requisites	[MATH 1232 (C) or MATH 1690 (C) or MATH 1700 (B) or MATH 1701 (B) or MATH 1710 (B)] and [MATH 1220 (C) or MATH 1300 (B) or MATH 1301 (B)]
Not to be held with	MATH 2120 (Eng)

2 Instructor Contact Information

Instructor(s) Name	Richard Mikaël Slevinsky
Office Location	421 Machray Hall
Office Hours or Availability	You are welcome any time I am in my office
Office Phone Number	204-474-6647
Cell Phone Number	431-334-9330 (mathematical emergencies)
E-mail	Richard.Slevinsky@umanitoba.ca All e-mail communication must conform to the Communicating with Students university policy. E-mail inquiries will be answered as soon as possible.

3 Required material

The course is based on course notes that are available through the bookstore and electronically on UM Learn.

A copy of JULIA-0.6, available from https://julialang.org/downloads/, under the section *Julia (command line version)*.

4 Course Outline

Elementary techniques of numerical solution of mathematical problems: solution of equations, linear systems of equations, nonlinear equations; finite and divided differences, interpolation; numerical differentiation and integration.

5 Attendance Policy

Attendance in the lectures and labs is mandatory.

6 Course Evaluation Methods

Students will be assessed using assignments, lab quizzes, a midterm, and a final examination.

Date	**Assessment Tool**	**Value of Final Grade**
By chapter	Assignments	20%
Bi-weekly	Lab quizzes	10%
Thursday, October 26, 2016	In-class midterm examination	25%
TBA	Final examination	45%

7 Grading

We will use the following scheme, subject to adjustments due to overall class performance.

Letter Grade	Minimum percentage to guarantee	Final Grade Point
A+	95	4.5
A	86	4.0
B+	80	3.5
B	72	3.0
C+	65	2.5
C	60	2.0
D	50	1.0

8 Assignment Grading Times

Normally, students can expect assignments and quizzes graded and returned within one week. Feedback will include a numerical grade and any comments that may be helpful for the students and/or that are required for the justification of the grade.

9 Schedule of tests and quizzes and assignments

The quizzes will be held in the labs bi-weekly; the assignments for each chapter of the course notes are tentatively due as follows.

Assignment	Date
Chapter 1	5:00 pm, Friday, September 29, 2017
Chapter 2	5:00 pm, Friday, October 20, 2017
Chapter 3	5:00 pm, Friday, November 3, 2017
Chapter 4	5:00 pm, Friday, November 17, 2017
Chapter 5	5:00 pm, Friday, December 1, 2017
Chapter 6	5:00 pm, Friday, December 8, 2017

10 Policy on missed or late assignments, quizzes, test

No late assignments will be accepted; no missed quizzes will be accepted. However, the lowest quiz and the lowest assignment grades will not be counted.

A student missing the midterm who contacts the instructor within two days of the scheduled midterm with supporting documentation may be provided with the procedure for a make-up midterm.

11 Course Technology

It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Student Accessibility Services. Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline "gaming" during scheduled class time.

We will use UM Learn and e-mail communication as the primary technologies and transmission of information.

12 Recording Class Lectures

Richard Mikaël Slevinsky holds copyright over the course material, presentations, and lectures which form part of this course. Audio or video recording of lectures, labs, and/or presentations is allowed in any format, openly or surreptitiously, in whole or in part so long as they are only used for the participant's private study and research.

13 Student Accessibility Services

If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

Student Accessibility Services http://umanitoba.ca/student/saa/accessibility/
520 University Centre

204 474 7423
Student_accessibility@umanitoba.ca

14 Academic Integrity

This section provides additional information to the general information about academic integrity and student discipline described in Schedule A Policies and Resources.

(i) Exams and quizzes are to be completed independently.

(ii) Students are encouraged to complete assignments in collaboration with other students registered in MATH 2160. Students must clearly report collaboration on the assignment as, for example:

"Questions 1 & 2 were completed in collaboration with Jane Doe, Student ID #."

Students should be able to complete more than 65% of any given assignment independently.