eTextbook: Linear Algebra and its Applications (with MyLab Access Code), 6th Edition. David C. Lay, Steven R. Lay & Judi J. McDonald. Available from the university bookstore. IMPORTANT: You must register for MyLab because homework, and possibly tests, will be done using this software. IT IS CRUCIAL that you only register with your CARLETON email address.

Prerequisite: Ontario Grade 12 Mathematics: Advanced Functions, or MATH 0005, or equivalent, or permission of the School.


Lectures: Wed. & Fri. 4:00-5:30 Please don’t miss the 1st class or 1st tutorial Wed. Sept 9 4:00PM. These will be live on ZOOM and will be recorded. •Please download the ZOOM APP to your computer/laptop/device and register with ZOOM using your CARLETON email address! You will not be able to join otherwise. Subsequent lectures will be asynchronous & posted on the ZOOM cloud. •First Lecture Wednesday Sept 9, 2020. Classes end Friday Dec 11, 2020.


Grading Scheme:
30% Online homework (10x3)
20% Assignments
20% Midterm Test
30% Final exam (date to be announced)

Midterm exam: There will be an 80-minute online midterm exam during class time on OCT 21 WEDNESDAY 4:00PM. If you miss the midterm exam for medical reasons, a medical note must be presented.

Online final exam: There will be a 3-hour online final exam scheduled during the usual exam period. It is the responsibility of each student to be available at the time of the final examination.

E-mail communication with instructor: Please only use your Carleton e-mail account for all course related e-mails. PLEASE put MATH1104 at the beginning of your email header.

Announcements: You are responsible for keeping up with information announced during the lectures and tutorials, or sent to your Carleton e-mail account, or announced in CULearn.

Office hours: Tuesday 1-3 by email appointment for a ZOOM meeting.
IMPORTANT! Minimal TECHNICAL REQUIREMENTS FOR ONLINE LEARNING:
https://carleton.ca/its/help-centre/faq-technical-specs-for-new-students/

Academic Accommodation:
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Academic Accommodations for Students with Disabilities:
The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC for a formal evaluation at 613-520-6608 or submit the form https://carleton.ca/registrar/wp-content/uploads/self-declaration.pdf.
If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of term, and no later than 2 weeks before the first in-class scheduled test requiring accommodation. After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. For the deadline to request accommodations for the formally-scheduled exams, visit the PMC website https://carleton.ca/registrar/special-requests/deferral

Religious obligations and/or accommodation for pregnancy: Please e-mail me with any requests for academic accommodation during the first 2 weeks of classes, or as soon as possible should the need for accommodation arise. For more information please see the guide at https://carleton.ca/equity/accommodation/academic/students/

MATH 1104A Tentative Lecture Schedule:

<table>
<thead>
<tr>
<th>DATES</th>
<th>SECTION</th>
<th>TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPTEMBER 9 &amp;11</td>
<td>1.1 1.2</td>
<td>Systems of Linear Equations. Solutions. Echelon Forms.</td>
</tr>
<tr>
<td>SEPTEMBER 16 &amp; 18</td>
<td>1.3 1.4 1.5</td>
<td>Vector Equations, The Matrix Equation Ax = b</td>
</tr>
<tr>
<td>SEPTEMBER 23 &amp; 25</td>
<td>1.6 1.10</td>
<td>Solution Sets of Linear Systems. Applications.</td>
</tr>
<tr>
<td>SEPT 30 &amp; OCT 2</td>
<td>1.7 1.8 1.9</td>
<td>Linear Independence. Matrix Operations.</td>
</tr>
<tr>
<td>OCTOBER 7 &amp;9</td>
<td>2.1 2.2 2.3</td>
<td>Matrix Inverse, Characterizations of Invertible Matrices.</td>
</tr>
<tr>
<td>OCTOBER 14 &amp;16</td>
<td>2.8</td>
<td>Subspaces of $\mathbb{R}^n$ Dimension</td>
</tr>
<tr>
<td>OCTOBER 21 &amp; 23</td>
<td>2.9</td>
<td>Midterm Oct 21 Dimension, Rank of matrices.</td>
</tr>
<tr>
<td>OCTOBER 26-30</td>
<td>FALL BREAK (NO CLASSES)</td>
<td></td>
</tr>
<tr>
<td>NOVEMBER 4 &amp; 6</td>
<td>3.1 3.2 3.3</td>
<td>Determinants &amp; their Properties. Cramer’s rule.</td>
</tr>
<tr>
<td>NOVEMBER 11 &amp; 13</td>
<td>5.1 5.2</td>
<td>Eigenvectors, eigenvalues &amp; characteristic equation</td>
</tr>
<tr>
<td>NOVEMBER 18 &amp; 20</td>
<td>5.3</td>
<td>Diagonalization Complex Numbers</td>
</tr>
<tr>
<td>NOVEMBER 25 &amp; 27</td>
<td>Appendix B</td>
<td>Complex Numbers. Complex Eigenvalues.</td>
</tr>
<tr>
<td>DECEMBER 2 &amp; 4</td>
<td>5.5 6.1</td>
<td>Inner Product, Length &amp; Orthogonality</td>
</tr>
<tr>
<td>DECEMBER 9 &amp; 11</td>
<td>6.2 6.3</td>
<td>Orthogonal Sets. Orthogonal Projections</td>
</tr>
<tr>
<td>FINAL EXAM</td>
<td>DATE TO BE ANNOUNCED</td>
<td></td>
</tr>
</tbody>
</table>

The above class outline is subject to change and intended for guidance in reading.

Teaching Assistants (TA’s) Office hours to be announced.
Kathryn     KathrynRichardson@cmail.carleton.ca
Keith       KeithHa@cmail.carleton.ca
Kristopher  KristopherGiang@cmail.carleton.ca