Welcome to MATH 1215! My name is Asmita, and my pronouns are they/them (or she/her). I’ll be your instructor for this course. You can either call me Dr. Sodhi, Professor, or just Asmita – whichever is most comfortable for you (be aware that not all your professors will be okay with you calling them by their first name!).

I am here to support you in your learning, and have tried to design the course to allow for some flexibility so that you can work at your own pace (with some deadlines built in). For each lesson in this course, you will have access to lecture videos, a handout, and a completed set of notes (the notes will have numbers indicating which part of the page corresponds to which part of the lecture video). The purpose of the handouts are to guide your notes, and to save you some time (if you choose to use them) from writing down any long passages of text. The videos are posted in small parts, as well as one long video – so you can choose the method of content consumption that works best for you. There are small understanding-checks built into the videos via quizzes – an opportunity to pause, attempt a question, and see how well you understood the concept. These video questions are not graded, and are simply for your own purposes.

We are going to go through this course together in unusual circumstances, and for some of us these circumstances may be more difficult than others. You likely would have preferred for this course to be taught in-person (me too – I miss seeing my students!), and it is understood that there may be some challenges you might face in the transition to online learning. Again, I am here to support you in your learning – if you tell me you’re having trouble with something, I am not going to judge you or think less of you. We’re all navigating this uncertainty in our own ways, and I promise to approach this course with compassion.

And now, for the business part of this syllabus...

**Course Description/Objectives:**
MATH 1215 is designed to provide the basic mathematical tools required for the life and social sciences. All of the main topics from differential and integral calculus will be covered (including derivatives, techniques of differentiation, logarithmic and exponential functions, optimization, basic ordinary differential equations, integration, and techniques and applications of integration) and have an emphasis on modelling systems from the life and social sciences.

**Prerequisite:** Nova Scotia Mathematics 11 and 12 or pre-calculus is highly recommended.

**Textbook:**
*Calculus for the Life Sciences: Modelling the dynamics of life*, 2nd Cnd. ed. by F. Adler and M. Lorvić.
Evaluation and Grading:

- **Homework** - For each module there will be multiple homework assignments found on Brightspace. There may look like there are a lot of assignments, but they're very short! The problems will be based on lecture/notes content and suggested textbook problems, and will be delivered using WeBWork via Brightspace. The lowest 3 homework assignments will be dropped.

- **Group Projects** - There will be two projects during the semester where you will have the opportunity to work out an application of the theory in this course to a real-life situation. You will have two-and-a-half weeks to complete each project. You will work on the projects in groups of 2 or 3.

- **Written Questions** - There will be one written question per week as practice to be submitted. The purpose of this is to practice communicating mathematics and check your understanding with written feedback beyond what WebWork can provide. This is just one single question, like you might have to do in WebWork – just you have to write out your solution to submit. Eight (of twelve) of these questions will count towards your grade.

- **Module Tests** - There will be five module tests throughout the course. The date of the final module test will be set by the registrar during the official Dalhousie exam period from December 10-20, 2020, and will be available when the exam schedule is posted in October. These tests will *not* be cumulative (in the sense that you will not be explicitly tested on material from previous modules), but this course scaffolds and therefore there is often knowledge that is needed to understand concepts in one module that were first addressed in a previous module. Tests will be available for a 24h window.

Your grade in the course will be the maximum of the following three marking schemes:

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Homework</th>
<th>Projects</th>
<th>Written Qs</th>
<th>Module Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10%</td>
<td>20%</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
<td>15%</td>
<td>20%</td>
<td>50%</td>
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<tr>
<td>3</td>
<td>15%</td>
<td>20%</td>
<td>15%</td>
<td>50%</td>
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</table>

Module tests will be variable in how much they are worth – the test you do the best on will count a little extra (15% of your total grade), and your worst test will count a little less (5% of your total grade).

\[
5% + 10% + 10% + 10% + 15% = 50%
\]

**Important Dates:**

- **September 11** Project 1 is available
- **September 18** Fees due for fall term; Last day to add fall term courses
- **September 28** Test 1 (Module 1 and 2)
- **September 30** Project 1 is due
  - **October 2** Last day to drop fall term courses without a “W”
- **October 19** Test 2 (Module 3)
- **October 30** Project 2 is available
- **November 2** Test 3 (Module 4)
- **November 2** Last day to drop fall term classes with a “W”
- **November 18** Project 2 is due
- **November 23** Test 4 (Module 5)
- **December 10-20** Final exam period; Test 5 (Module 6)
Course Topics and Approximate Dates:

See MATH 1215 Schedule document on Brightspace.

Letter Grade Distribution:
Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
</tr>
<tr>
<td>A</td>
<td>85-89</td>
</tr>
<tr>
<td>A-</td>
<td>80-84</td>
</tr>
<tr>
<td>B+</td>
<td>77-79</td>
</tr>
<tr>
<td>B</td>
<td>73-76</td>
</tr>
<tr>
<td>B-</td>
<td>70-72</td>
</tr>
<tr>
<td>C+</td>
<td>65-69</td>
</tr>
<tr>
<td>C</td>
<td>60-64</td>
</tr>
<tr>
<td>C-</td>
<td>55-59</td>
</tr>
<tr>
<td>D</td>
<td>50-54</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 50</td>
</tr>
</tbody>
</table>

Course Policies:

- We will be using Piazza for answering questions in this course – rather than emailing your content- or problem-related questions to the instructor or TAs, you are asked to post your questions on Piazza. The system is highly catered to getting you help fast and efficiently from classmates and the instructor. Before accessing Piazza, you will need to enroll in our course space at https://piazza.com/dal.ca/fall2020/math1215. You can find our class page at https://piazza.com/dal.ca/fall2020/math1215/home (both of these are also linked on Brightspace).

- For personal matters that warrant an email to be sent, please be aware that it could take some time for a response, depending on the issue. If your question is about something in the future (for example, you need an extension on something), you will get a response fairly quickly. If your question is about something in the past (for example, you’re not sure about how you were graded on a problem you’ve already submitted), it may take a little longer for a response. Emails are answered as promptly as they can be, but please do not expect an immediate response every time.

- All homework assignments are to be completed on WeBWorK (via Brightspace). Homework extensions will not be granted after the due date has passed.

- Module tests will be open-book, meaning that you may use your notes, textbook, and other static (not changing) resources. Communicating with others about the test is strictly prohibited, as is the use of resources (online or offline) that can perform calculus operations for you. You will be given adequate time for module tests to complete the content as well as to account for any technical difficulties.

- In addition to TA student hours, this course is also supported by the online Math Learning Centre, which is available for assistance for the duration of the course. A link to this resource along with the Learning Centre hours can be found on Brightspace, listed with course student hours.
University Policies and Statements
This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Missed or Late Academic Requirements due to Student Absence
As per Senate decision instructors may not require medical notes of students who must miss an academic requirement, including the final exam, for courses offered during fall or winter 2020-21 (until April 30, 2021). Information on regular policy, including the use of the Student Declaration of Absence can be found here: https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html.

Academic Integrity
At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.
Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility
The Advising and Access Services Centre is Dalhousie’s centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).
Information: https://www.dal.ca/campus_life/academic-support/accessibility.html

Student Code of Conduct
Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don’t follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can’t be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Diversity and Inclusion - Culture of Respect
Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness.
Statement: http://www.dal.ca/cultureofrespect.html

Recognition of Mi’kmaq Territory
Dalhousie University would like to acknowledge that the University is on Traditional Mi’kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) (elders@dal.ca).
Information: https://www.dal.ca/campus_life/communities/indigenous.html
Important Dates in the Academic Year (including add/drop dates)
https://www.dal.ca/academics/important_dates.html

University Grading Practices
https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Student Resources and Support

Advising

- General Advising: https://www.dal.ca/campus_life/academic-support/advising.html
- Science Program Advisors: https://www.dal.ca/faculty/science/current-students/academic-advising.html
- Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html
- Black Students Advising Centre: https://www.dal.ca/campus_life/communities/black-students-advising.html
- International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic Supports

- Library: https://libraries.dal.ca/
- Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html
- Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html
- Copyright Office: https://libraries.dal.ca/services/copyright-office.html

Other Supports and Services

- Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness/services-support/student-health-and-wellness.html
- Student Advocacy: https://dsu.ca/dsas

Safety

- Biosafety: https://www.dal.ca/dept/safety/programs-services/biosafety.html
- Chemical Safety: https://www.dal.ca/dept/safety/programs-services/chemical-safety.html
- Radiation Safety: https://www.dal.ca/dept/safety/programs-services/radiation-safety.html
- Scent-Free Program: https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html