

## Math 201 Midterm Winter 2017

Your midterm is Saturday, March 11, at 10:00 AM. The exam rooms are:

Section	Instructor	Room
EQ1	Resendiz	NRE 2-001 if your family name starts with A-L, NRE 2-003 if your family name starts with M-Z.
ER1	Woolgar 9AM	ETLC E1-003.
ES1	Hessari	ETLC 2-001 if your family name starts with A-L, ETLC 2-002 if your family name starts with M-Z.
ET1	Woolgar 10AM	ETLC E1-007.
EU1	Berger 10AM	ETLC E1-013.
EV1	Berger 2PM	ETLC E1-017.

- Bring your OneCard.
- No textbook, no notes, no formula sheets, no calculators, no electronic devices.

### Study Session:

- 4-7PM Thursday, 9 March, Decima Robinson Support Centre, CAB528.

### Checklist:

1. Can you solve first-order linear and separable equations (and related types)?
2. Do you know when a first order is exact, and how to find an integrating factor to make certain equations exact? How do you solve first-order exact equations?
3. Do you know all the possible cases for second-order constant-coefficient homogeneous equations, and can you solve them?
4. When do you use the Method of Undetermined Coefficients? What do you do when the nonhomogeneous term or its derivatives are solutions of the corresponding homogeneous equation?
5. Can you use the Method of Variation of Parameters?
6. Can you compute series solutions of first- and second-order DEs? Can you find a lower bound for the radius of convergence of the solution? Can you find that bound without finding the solution?
7. Do you know what a Wronskian is and what it's used for?
8. Do you know what the Method of Reduction of Order is and what it's used for?
9. What is resonance?
10. What do under-damped, over-damped, and critically damped mean?