

**Instructor:** Magdalena Musielak

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Office hrs: Mon 10:30–11:30

Wed 13:30–15:00

Fri 10:00–11:30

or by appointment

**Class meets:** Mon 1:15–3:00, in CNM #1  
Thur 2:15–4:00, in CNM #1  
Fri 1:15–3:00, in CNM #105

### Attendance

Attendance is **mandatory**. If you miss a class you have up to two weeks to have your absence excused. You must present the instructor with a *legitimate* reason supported by a letter/note from a person with an appropriate authority, e.g. a doctor. Legitimate excuses include medical or family emergencies, but not oversleeping or one-day illness. Regardless of attendance, you are responsible for all material covered in class, and you are expected to be aware of all announcements made in class. You are **allowed to miss three classes** without presenting a legitimate reason. If you have more than three unexcused absences you will be debarred from the final exam, and as a result you will have to retake the course next year.

Coming to class late more than 30 minutes twice will be treated as one absence.

### Assessment

1. **Tests (45pts)**. There will be three written tests each worth 15pts. If you miss a test due to a legitimate reason, you will have an opportunity to take a make-up test. Make-up tests will be scheduled at the end of the semester at the discretion of the instructor.
2. **Activity Points (10pts)**. During tutorials you may collect up to 10pts, mainly (but not only) by volunteering to go to the board. One successful visit to the board is worth 0.5 point. You may collect at most one point per day.
3. **Final Exam (50pts)** will be cumulative. You must collect at least 25pts from tutorials (tests + activity) to take the exam in the first session. If during tutorials you collect at least 40pts you are exempt from taking the exam.

### Tutorials Participation

You receive points for active participation, lack thereof will result in point deductions. You are expected to be prepared for the tutorials, i.e. you must be familiar with the current (and past) material covered in lecture. If you come to class unprepared, you will receive a negative point.

Moreover, refusal to go the blackboard when asked, disrupting class by talking too much with your colleagues will result in marking you as absent.

**Grading scheme**

- If you earn at least 40pts from tutorials, and you choose not to take the final exam, then your final grade will be determined according to the following scheme:

<i>Score</i>	[40, 45)	[45, 48)	[48, $\infty$ )
<i>Grade</i>	4	4,5	5

- If you take the exam in the first session then your final grade will be determined according to the following scheme:

<i>Score</i>	< 45	[45, 69)	[69, 80)	[80, 90)	[90, 97)	[97, $\infty$ )
<i>Grade</i>	2	3	3,5	4	4,5	5

- If you don't collect the minimum of 25 pts from tutorials or your total score after the first session is < 45pts, then you may take the final exam in the retake session. Your final grade will be determined according to the following scheme

<i>Score</i>	< 25	[25, 35)	[35, 40)	[40, 45)	[45, 49)	[49, 50]
<i>Grade</i>	2	3	3,5	4	4,5	5

**Calculator policy**

The use of calculators, including cell phone calculators, tablets, smartphones, and the likes, is not allowed on tests and final exam.

**Academic integrity**

The highest level of academic honesty and integrity is expected. Any form of cheating during a test or final exam will result in a zero score for that test or exam.

**Useful resources**

1. eCourse on Moodle (WCh - GTM II - Mathematics (M. Musielak), access key:**globalwarming**) – will contain slides from the lecture, this syllabus, tutorial problems, etc. and links to other resources.

**Tentative schedule:**

	<b>Topics</b>	
Week 1–2	Improper Integrals	Types, applications. L'Hospital's Rule.
Week 3–4	Complex Numbers	Different forms. Complex conjugate, modulus. Roots. Equations.
Week 5–8	Ordinary Differential Equations	Separable. First order linear. Bernoulli. Second order with constant coefficients.
Week 9–12	Elements of Linear Algebra	Matrices, determinants. Inverse matrix. Systems of equations. Gaussian elimination. Eigenvalues and eigenvectors.
Week 13–15	Probability and Statistics	Discrete and continuous random variable. Expected value. Probability distributions. Elements of statistics.