Lecture/Tutorials:	**Magdalena Musielak**
Office:	CNMiKnO, #102
Phone:	348 61 90
e-mail:	magmusie@pg.gda.pl

Class meets: Wed 11:15–14:45, in NE #231
                   Thur 13:15–16:45, in NE #231

The class will meet for the first 10 weeks of the semester. For the first five weeks we will meet exactly as given above (4h+4h per week). Then for the next five weeks we will meet on the above given days but for half the time, that is 2h+2h per week (or once a week for 4 hours).

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 two classes** without presenting a legitimate reason.

Assessment

1. **Tutorials (50pts)**

   - **Tests (50pts)**. There will be two written tests each worth 25pts. 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 discretion of the instructor.

   - **Activity Points (10pts)**. During tutorials you may collect up to 10 extra points for class participation, extra assignments etc.

2. **Final Exam (50pts)** will be a cumulative written exam. All students may take the final exam regardless of their tutorial score. If you collect at least 40pts (80%) from tests you are exempt from taking the final 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.

Grading scheme

- The bonus points will be added to your tutorial and final exam points, and your final grade will be assigned according to the following table:

$Score$	< 50	$[50, 60)$	$[60, 70)$	$[70, 80)$	$[80, 90)$	$[90, 100]$	$[101, \infty)$
$Grade$	2	3	3,5	4	4,5	5	5,5

- If you fail to pass the class after the first session, then you may take the final exam in the repeat session. Your final exam score will be added to your tutorials score and the final grade will be determined according to the table above. Bonus points are not added to the repeat exam scores.

Calculator policy

Only simple arithmetic calculators are allowed on tests and final exam (calculators than can perform only the four basic arithmetic operations, and perhaps also calculate a square root). The use of scientific, graphing, 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 *WETI - Sem0, IIst. - Mathematics 2016/17 (M.Musielak)*, access key:**weRyoung**) – will contain slides from the lecture, this syllabus, tutorial problems, etc. and links to other resources.

Tentative schedule:

	Topics	
Week 1–2	Derivatives and Integrals	Definitions. Basic formulas. Optimization and Approximation with derivatives. Definite and indefinite integral. Integration by substitution, by parts, by partial fractions. Improper integrals. Applications of integration.
Week 3–4	Ordinary Differential Equations	Separable. First order linear. Bernoulli. Second order with constant coefficients. Laplace transform.
Week 4–5	Infinite sequences and series	Number sequences and series. Power series. Fourier series. Discrete Fourier transform.
Week 6–7	Multivariable Calculus	Partial derivatives. Directional derivative. Double and triple integrals with applications.
Week 8–9	Vector Calculus	Scalar and vector fields. Gradient, divergence, rotation, Laplacian. Line and surface integrals over scalar and vector fields.
Week 10	Probability theory	Random variables. Distributions. Expectations.