

Analiza matematica I

Obiectiv principal

Introducerea, înțelegerea și aprofundarea noțiunilor fundamentale din analiza matematica cu aplicații în ingineria sistemelor.

CourseObjective

Introduction, understanding and deepening of the fundamental notions of mathematical analysis with applications in systems engineering.

Curs

2 ore/săptămână, total 28 ore

- Notiuni de teoria multimilor (multimi, functii). Spatiul R^n .
- Siruri si serii de vectori in R^n ;
- Functii continue de mai multe variabile reale
- Functii diferentiabile si aplicatii la extremele functiilor;
- Functii implicite si aplicatii
- Aplicatii la curbe si suprafete
- Serii de puteri
- Serii Fourier

Course

2 hours weekly, 28 hours total

- Notions of set theory (sets, functions). Space R^n .
- Sequences and series of vectors in R^n ;
- Continuous functions of several real variables
- Differentiable functions and applications at extremes of functions;
- The implicit functions and applications
- Applications at curves and surfaces
- Power series
- Fourier series

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