

# **Selected Topics in Experimental Design and Chemometrics**

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## **Course Outline**

- Evaluation of sources of variation in data (analysis of variance)
- Calibration
- Reliability and drift
- Sensitivity and limit of detection
- Experimental design
  - The origins of experimental design
  - Block designs
  - Latin square designs
  - Graeco-Latin square designs
  - Hyper-Graeco-Latin squares
  - Factorial designs
  - Fractional factorial designs
  - Composite designs
  - Mixture designs
  - Placket-Burman design
- Experimental optimization
  - Response surfaces
  - Sequential approach
  - Evolutionary operation

Simplex optimization

<b>Termin</b>	<b>Dzień tygodnia</b>	<b>Godzina</b>	<b>Miejsce</b>
<b>01.10.2012</b>	<b>Poniedziałek</b>	<b>9.15 – 12.00</b>	<b>LUWR</b>
<b>02.10.2012</b>	<b>Wtorek</b>	<b>9.15 – 12.00</b>	<b>LUWR</b>
<b>03.10.2012</b>	<b>Środa</b>	<b>9.15 – 12.00</b>	<b>LUWR</b>
<b>04.10.2012</b>	<b>Czwartek</b>	<b>9.15 – 12.00</b>	<b>LUWR</b>
<b>05.10.2012</b>	<b>Piątek</b>	<b>9.15 – 12.00</b>	<b>LUWR</b>