Numerical Calculus exam subjects

- **Finite and divided differences - required**

- **Taylor interpolation - required**

- **Lagrange interpolation - required**

- **The Aitken's algorithm - not required**

- **Newton interpolation - required**

- **Hermite interpolation - required**

- **Hermite interpolation with double nodes - required**

- **Birkhoff interpolation - required**

- **Cubic spline interpolation - required**

- **Least squares approximation - required**

- **Interpolatory quadrature formulas - required**

- **Repeated quadrature formulas - required**

- **The Romberg's iterative generation method of a repeated quadrature formula - not required**

- **Adaptive quadrature methods - not required**

- **General quadrature formulas - required**

- **Quadrature formulas of Gauss type - required**

- **Romberg's algorithm for the rectangle quadrature formula - not required**

- **Numerical methods for solving linear systems: direct methods and iterative methods - required**

- **Perturbation of linear systems - not required**

- **Numerical methods for solving nonlinear equations in $\mathbb{R}$ - required**