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| N° ECUE | XA4S502 | | | | | | | | |
| Title | Mathematical method for engineers | | | | | | | | |
| ECTS |  | Lecture(h)  CM 10,5h |  | Tutorials (h)  TD 22h |  | Pratical works (h) TP |  | Project (h) |  |
| Description  This teaching lays the foundations in mathematics necessary for the other subjects of the year  The content is the following:  1/ differentiation of functions with one variable, limited developments  2/ root finding numerical methods  3/ vectors differentiation  4/ partial and total derivatives  5/ differential operators  6/ optimum finding, mean square regression  7/ integration, ordinary differential equations  8/ numerical integration methods  9/ basic matrix calculation – linear system solution  10/ interpolation  11/ application of linear algebra to geometry  12/ jacobian matrix and non-linear system solution | | | | | | | | | |
| Key Words | Linear algebra, analysis, derivation, integration, interpolation, optimisation, numerical methods | | | | | | | | |
| Type of Evaluation | Continuous assessment (several small assessments and 2 of 1hour each) | | | | | | | | |