Department of Mathematics
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Course	**Course Name**	**: Numerical Methods**
	Course Code	**: KM184404**
	Credit	**: 3**
	Semester	**: 4**

Description of Course
In this course will be studied numerical methods to complete the search of the roots of equations, systems of linear equations, systems of nonlinear equations, differential and numerical integration and curve matching. The algorithms for those methods will be studied and implemented in the programming languages studied. Furthermore, students are expected to be able to solve numerical problems related to science and technology.

Learning Outcome	
PLO 2	[C3] Students are able to solve simple and practical problems by applying basic mathematical statements, methods and computations
PLO 3	[C4] Students are able to analyze simple and practical problems in at least one field of analysis, algebra, modeling, system optimizations and computing sciences

Course Learning Outcome
Students understand and can solve problems related to numerical methods that are commonly encountered in computer science and engineering problems.

Main Subject
In this course students will study the following subjects: error / equation definition, equation roots, Linear equation system, nonlinear equation system,

interpolation, numerical derivation, numerical integration and curve matching.
Prerequisites
Reference
1. Gerald, C. F. & Wheatley O. P, 2013. " Applied Numerical Analysis 7th edition", Addison Wesley Publishing Company, California 2. Chapra, S.C. & R.P. Canale, 1989, " Metode Numerik" Edisi ke-2, Penerbit Airlangga, Jakarta
Supporting Reference
1. Burden, R.C., Faires J.D. , Reynolds, A.C., 2010, " Numerical Analysis", Brooks/Cole Cengage Learning, Boston.