

Courses of Other Colleges Similar to MA451 Differential Equations and Their Prerequisites

College	Course Name	Description	Prereq
BMCC	MAT 501:	This is a first course in the theoretical and applied aspects of ordinary differential equations. Topics include: first-order equations, exact equations, linear equations, series solutions, Laplace transforms, Fourier series, and boundary value problems.	MAT 302 Calculus II, or permission of the department
BCC	MTH 34 : Differential Equations and Selected Topics in Advanced Calculus.	Methods of solving ordinary differential equations; selected topics from among the following: hyperbolic functions, power series, Fourier series, gamma functions, Bessel functions, problems of motion, electric circuits, damped and forced vibrations, Laplace transform.	MTH 33 (Analytic Geometry and Calculus III) or equivalent
Guttman	NO		
Hostos	MAT 360 DIFFERENTIAL EQUATIONS	The student will formulate and solve differential equations of the first and second order. She/he will apply these methods to related practical problems. The student will formulate and solve linear differential equations with constant coefficients and apply these techniques to practical problems that give rise to such equations.	Prerequisite: MAT 310 CALCULUS I I I
Kingsborough	MAT 5500 - Differential Equations	The solution of ordinary linear differential equations, operational techniques, solution by series, numerical solutions, Laplace transforms, and applications in engineering and the sciences.	Prerequisite(s): MAT 1600 - Calculus II with a grade of "C" or better

College	Course Name	Description	Prereq
Laguardia	MAT 204 Elementary Differential Equations	This course considers selected problems and mathematical models which generate ordinary differential equations. Both numerical and analytical methods will be used to obtain solutions. Geometrical interpretation of differential equations will be emphasized, and where feasible, solutions utilizing computer methods will be explored. Topics also include boundary-value problems, linear systems, and Laplace Transforms. Applications to classical mechanics and electric circuits will be examined.	Prerequisite: MAT 202 Calculus II ; Pre-or Corequisite: MAT 203 Calculus III
Queensborough Community College	MA-451 Differential Equations	Methods of solving ordinary differential equations with physics, engineering and computer science applications; solutions by series. Students will solve application problems using software such as MAPLE.	Pre-requisites (if any): MA-443 (with a grade of C or better)
Baruch College	MTH 4110 – Differential Equations	Topics to be included are existence and uniqueness of solutions, first order equations, linear equations, series solutions of second order linear equations, Laplace Transforms, linear systems, boundary value problems (with an introduction to Fourier series) and numerical methods.	The prerequisite is not clearly stated.
Brooklyn College	MATH 2206 Introduction to Differential Equations	Standard methods of solving ordinary differential equations; geometric interpretations; problems in physics leading to ordinary and partial differential equations; elementary techniques for partial differential equations and separation of variables; Fourier series.	Prerequisite or corequisite: Mathematics 2101 Linear Algebra I and Mathematics 2201 Multivariable Calculus.
College of Staten Island	MTH 334 Differential Equations	Formulation and solution of ordinary differential equations. Reduction of order, operational techniques, a place system of equations, Frobenius methods, boundary value problems, transform solutions, special functions, and existence and uniqueness theorems. Applications from science and engineering. Credit will not be given for both MTH 330 and MTH 334 .	Prerequisite: MTH 233 Calculus III or MTH 236 Accelerated Calculus II .
Hunter College	MATH 254 Ordinary Differential Equations	First-order equations, second-order linear equations and linear systems, power series solutions, transform and numerical methods, introduction to qualitative theory	MATH 250 Calculus with Analytic Geometry III

College	Course Name	Description	Prereq
John Jay College of Criminal Justice	MAT 351 Introduction to Ordinary Differential Equations	Differential equations are introduced as a mathematical expression of the postulates and principles describing growth, decay, and oscillatory phenomena. Examples are chosen from biology, chemistry, economics, medicine, the public sector and the social sciences. The interpretation of the mathematical solutions with respect to the given problems is emphasized. The use of computers in problem solving is also included.	Prerequisite ENG 201, MAT 242 Calculus II Corequisite MAT 242 Calculus II
Lehman College	MAT 323: Ordinary Differential Equations	Exact and approximate solutions of ordinary differential equations, existence theorems, and applications to problems in the physical sciences. Series solutions; Laplace transforms and Fourier analysis. Computer applications.	PREREQ: MAT 226: Intermediate Calculus I.
Medgar Evers College	MTH 205 - Elementary Differential Equations	This course is designed to introduce students to the idea and nature of ordinary differential equations. Computers will be integrated in teaching the theory and applications in gaining insight into the solution of both linear and nonlinear differential equations. Topics covered include direction fields, phase planes and phase portraits; first order equations, higher order equations, systems of first order differential equations, the Laplace transform; and series solutions.	Pre-Requisites: MTH 203 - Calculus II with a grade of "C" or better.
New York City College of Technology	MAT 2680 Differential Equations	Topics include methods of solving ordinary differential equations and applications to various problems.	Pre- or corequisite: MAT 1575 Calculus II
Queens College	<i>MATH 223</i> . Differential Equations with Numerical Methods I	First order linear, separable, and exact equations; second order linear equations; series solutions; existence and uniqueness theorem; numerical solutions; applications.	MATH 201 Calculus and MATH 231 Linear Algebra I
The City College of New York	Math 39100: Methods of Differential Equations	First order equations; higher order linear equations with constant coefficients, undetermined coefficients, variation of parameters, applications; Euler's equation, series solutions, special functions; linear systems; elementary partial differential equations and separation of variables; Fourier series.	A grade of C or higher in Math 21300: Calculus III with Vector Analysis or Math 20300: Calculus III , or departmental permission.
York College	MATH321 Finite Differences and Difference Equations	Fundamental concepts of finite differences; interpolation formulae; linear and nonlinear difference equations; theory of interest and annuities. Related topics	Preq: MATH 221 Analytic Geometry and Calculus III or permission of instructor.

College	Course Name	Description	Prereq
Nassau community college	MAT 234 - Elementary Differential Equations	Analysis and methods of solving first-order equations, including numerical methods; higher order equations including the Laplace transform method, the Taylor series solution, and boundary value problems; linear systems of equations; applications to physical, engineering and life sciences.	Prerequisites: At least a C in MAT 123 - Calculus II .
St. John's University	MTH 1018: Differential Equations	Equations of order one; linear differential equations; the LaPlace Transform; systems of linear differential equations; solutions by series; applications.	Prerequisite: MTH 1010: Calculus II
Adelphi University	MTH (0144) 244 - Introduction to Ordinary Differential Equations	Make an in-depth study of first-order differential equations, systems of differential equations, and higher-order equations. Use numerical techniques, slope fields, phase planes, and nullclines to extract information about models. Learn techniques for solving equations: integrating factors, methods of undetermined coefficients, variation of parameters, eigenvalues, and Laplace transforms.	Prerequisite 1: MTH (0144) 142 - Calculus II Prerequisite 2: MTH (0144) 253 - Linear Algebra
Hofstra University	MATH 131 - (MA) Elementary Differential Equations	Methods for the solution of elementary types of ordinary differential equations with geometrical, physical and chemical applications.	Prerequisite(s)/Course Notes: MATH 072 - (MA) Analytic Geometry and Calculus II