

MATH 240.01-02

Differential Equations

Spring 2016-17

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Course web page: <http://www.fen.bilkent.edu.tr/~mugan/courses/math240/Math240-Generic.htm>

Text Books : **Main Textbook:**
William E. Boyce & Richard C. DiPrima
Elementary Differential Equations and Boundary Value Problems, 10th Edition
(John Wiley and Sons, 2010)
Supplementary Textbooks:
Rainville, Bredient & Bredient
Elementary Differential Equations, (Prentice Hall, 1997)

Exams : Quizzes, Homeworks and Attendance (15 %) (**NO MAKE-UP FOR QUIZES**)
Midterm Exam # 1 (25 %), **Date: March 15, 2017, Wednesday, Time:18:00-20:00,**
Place: To Be Announced
Midterm Exam # 2 (25 %), **Date: April 18, 2017, Tuesday, Time:18:00-20:00,**
Place: To Be Announced
Final Exam (35 %), **To be announced**

There will be about 12 pop-up quizzes

FZ Grade: If total grade of two midterm exams is less than 30 points (< 30/200).

Week	Subject	Exams
1. February 6	Introduction to Differential Equations (DE), First order DE	
2. February 13	Integrating Factors, Seperable Eq. Homogenous tpe DE	
3. February 20	Exact D.E. & Integrating Factor, Autonomous Type DE	
4. February 27	Mathematical Models, Application of 1st order ODE	
5. March 6	Linear Depend., Wronskian, Constant Coeff. Linear DE	
6. March 13	Constan Coefficient Linear DE, Reduction of Order	Midterm Ex #1
7. March 20	Method of Undetermined coefficients	
8. March 27	Variation of Parameters	
9. April 3	Application of the second order Ordinary DE	
10. April 10	Higher order Linear Differential Equation	
11. April 17	Singularities of Differential Equation	Midterm Ex #2
12. April 24	Series Solutions of DE, Ordinary Point	
13. May 1	Series Solutions of DE, Regular Singular Point	
14. May 8	Laplace Transform	
15. May 15	Laplace Transform, Convolution	