**Ankara Üniversitesi
Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

Ders izlence Formu

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| Dersin Kodu ve İsmi | MTH4432 Applied Partial Differential Equations |
| Dersin Sorumlusu | Rabia AKTAŞ |
| Dersin Düzeyi | Lisans |
| Dersin Kredisi | Ulusal Kredi:3 AKTS:6 |
| Dersin Türü | Seçmeli |
| Dersin İçeriği | Partial differential equations with variable coefficient, Characteristic curves, Cauchy problems, Clasiffication of partial differential equations, Heat equation, Solution of Heat equation with boundary conditions, Laplace equation, Wave equation, Vibrating String with fixed end points, D'alembert 's solution, Sturm-Liouville eigenvalue problems, Problems with a boundary condition of the third type |
| Dersin Amacı | The theory of partial differential equations has many application areas in applied mathematics, basic sciences and engineering. This lecture deals with PDE's with variable coefficient, Cauchy problems and canonical forms of partial differential equations. The solutions of Wave equation, Heat equation and Laplace equation which are frequently encountered in physical problems are obtained and Sturm-Liouville eigenvalue problems are given. |
| Dersin Süresi | 14 hafta |
| Eğitim Dili | İngilizce |
| Ön Koşul | Yok |
| Önerilen Kaynaklar | 1. Richard Haberman, Applied Partial Differential Equations: with Fourier Series and Boundary Value Problems (Fourth Edition), Pearson Education (2004)
2. Ian Sneddon , Elements of Partial Differential Equations, McGraw-Hill International Editions (Mathematics Series), 1985
3. R. Dennemeyer, Introduction to Partial Differential Equations and Boundary Value Problems., McGraw-Hill, New York , 1986.
4. Okay Çelebi, M. Çağlayan, Kısmi Diferensiyel Denklemler, 2002.
5. Kerim Koca, Kısmi Türevli Denklemler, 2012.
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| Dersin Kredisi | Ulusal Kredi:3 AKTS:6 |
| Laboratuvar | - |
| Diğer-1 | - |