**Ankara Üniversitesi  
Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

Ders izlence Formu / Syllabus

|  |  |
| --- | --- |
| Dersin Kodu ve İsmi  Course Title and Code | **FDE447 Cold Preservation Technology** |
| Dersin Sorumlusu  Course Coordinator | Prof. Dr. Ayla Soyer |
| Dersin Düzeyi  Course Level | UNDERGRADUATE |
| Dersin Kredisi  Course Credits | 2 credit |
| Dersin Türü  Course Type | Technical elective |
| Dersin İçeriği  Course Content | Basic concepts of refrigeration, refrigeration systems and refrigeration cycle, refrigerants, cold stores, isolation of cold stores, defrost systems, cold preservation of foodstuffs, refrigeration load, freezing of food, freezing phenomena, freezing systems and freezing methods, refrigeration load during freezing, freezing rate and freezing time, freezer capacity, thawing methods of frozen foods, quality changes of frozen foods during freezing and storage. |
| Dersin Amacı  Course Goals | * Outlines the basic concepts food refrigeration and freezing, * Analyses cold storage conditions and explains the important parameters of cold storage, * Describes the freezing phenomena and freezing methods, * Explains the quality changes of frozen foods during freezing and frozen storage |
| Dersin Süresi  Office Day-Hours | 14 weeks/one semester |
| Eğitim Dili  Language of Instruction | English |
| Ön Koşul  Prerequisites | No |
| Önerilen Kaynaklar Recommended Sources | Cemeroğlu, B., Soyer, A. 2010. Soğutma ve Dondurma. Gıda Mühendisliğinde Temel İşlemler. B. Cemeroğlu (Ed.), Bizim Grup Basımevi, Ankara. 1-259. sayfalar.  Berk, Z. 2013. Refrigeration: Chilling and freezing. Chap.19,20. In: Food Process Engineering and Technology, 2nd Ed. 439-477, Elsevier Inc., USA.  Evans, J.A. 2008. Frozen Food Science and Technology. P. 355, Blackwell Publishing Ltd., Oxford UK.  Singh, R.P., Heldman, D.R. 2003. Introduction to Food Engineering. 3rd ed. Academic Press, Glasgow, Great Britain. |
| Dersin Kredisi (AKTS)  ECTS | 2 (6) |
| Laboratuvar  Laboratory |  |
| Diğer-1  Others |  |