**Ankara Üniversitesi
Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

Ders izlence Formu

|  |  |
| --- | --- |
| Dersin Kodu ve İsmi | **FDE437 FERMENTATION TECHNOLOGY** |
| Dersin Sorumlusu | ARŞ. GRV. DR. SİMEL BAĞDER ELMACI |
| Dersin Düzeyi | LİSANS |
| Dersin Kredisi | 2 |
| Dersin Türü | ZORUNLU |
| Dersin İçeriği | 1. Definition and importance of fermentation
2. Basic principles of food fermentation
3. Fermentation microorganisms
4. Fermentation biochemistry
5. Beer technology
6. Vinegar technology
7. Lactic acid fermentations and technologies
8. Alcohol fermentation and other fermentations
9. Wine technology
10. Distilled spirits technology
11. Quality analysis in fermented food products
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| Dersin Amacı | * An ability to have a knowledge on the definition and importance of fermentation technology.
* An ability to gain knowledge about the basic principles of fermentation and technologies of fermented food products.
* An ability to learn the characteristics and production technologies for different types of fermented food products.
* An ability to describe the production processes and properties of alcoholic beverages.
* An ability to learn role of microorganisms in fermentation and to gain skills to control of fermentation processes.
* An ability to explain the problems that may occur in fermented and distilled beverages and to offer solutions.
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| Dersin Süresi | 2+0 |
| Eğitim Dili | İNGİLİZCE |
| Ön Koşul | YOK |
| Önerilen Kaynaklar | * Hui, Y.H., Meunier-Goddik, L., Hansen, A.S., Josephsen, J., Nip, W-K., Stanfield, P.S., Toldrá, F. (2004). **Handbook of Food and Beverage Fermentation Technology.** Marcel Dekker, Inc., New York, USA.
* Hutkins, R.W. (2019). **Microbiology and Technology of Fermented Foods.** John Wiley & Sons, Inc., USA.
* Ray, R.C., Montet, D. (2017). **Fermented Foods Part II: Technological Interventions.** CRC Press Taylor & Francis Group, Boca Raton.
* Bamforth, C.W. (2005). **Food, Fermentation and Micro-organisms**. Blackwell Science Ltd., UK.
* Okafor, N. (2007). **Modern Industrial Microbiology and Biotechnology.** Science Publishers, Enfield, NH, USA.
* Wood, B.J.B. (1998). **Microbiology of Fermented Foods.** Blackie Academic and Professional, Thomson Science, UK.
* Stanbury, P.F., Whitaker, A., Hall, S.J. (1995). **Principles of Fermentation Technology.** Butterworth-Heinemann, Elsevier Science Ltd., Burlington.
* Özçelik, F. **Fermantasyon Teknolojisi Dersi Ders Notları** (*in Turkish*).
* Özçelik, F., Bağder Elmacı, S. (2020). **Turşu Üretimi**. In: **Fermente Ürünler Teknolojisi ve Mikrobiyolojisi**. Editörler: Osman Erkmen, Hüseyin Erten, Hidayet Sağlam, Nobel Akademik Yayıncılık, 293-314, ISBN:978-625-406-665-8 (*in Turkish*).
* Özçelik, F., Bağder Elmacı, S. (2020). **Sirke Üretimi**. In: **Fermente Ürünler Teknolojisi ve Mikrobiyolojisi**. Editörler: Osman Erkmen, Hüseyin Erten, Hidayet Sağlam, Nobel Akademik Yayıncılık, 267-291, ISBN:978-625-406-665-8 (*in Turkish*).
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| Dersin Kredisi (AKTS) | 2 |
| Laboratuvar | - |
| Diğer-1 |  |