



2023-2024 Academic Year
List of Courses Offered in Foreign Language

Faculty of Science
Fen Bilimleri Fakültesi

	Department <i>Bölüm</i>	Course Code <i>Ders Kodu</i>	ECTS <i>AKTS</i>	Course Title <i>Dersin Adı</i>	Semester <i>Dönem</i>	Course Content <i>Dersin İçeriği</i>	Academic Staff <i>Dersi Veren Öğretim Elemanı</i>	Online Available <i>Çevrimiçi</i>
1	Uzay Bilimleri ve Teknolojileri <i>Space Sciences and Technology</i>	UBT330	5	Spectroscopic Applications in Astrophysics	Bahar <i>Spring</i>	Introduction to Spectroscopy, the nature of spectrum, atomic structure: spectrum of hydrogen atom, quantum numbers, parity, spectroscopic notation, electrical configuration, coupling and jj coupling, Hund's rule, Hartree-Fock method, fine structure, atomic processes: collisional and radiative processes, radiative transitions: Einstein A and B coeffs., oscillator strength, absorption lines and radiative transfer, stellar properties and spectrum: luminosity, intensity, flux, spectroscopic classification and H-R diagram, color, extinction, reddening, Solar Spectroscopy: Solar spectrum and spectroscopic applications that will be performed by using solar spectrum	Prof. Dr.Timur Şahin	