Course Syllabus

Code - Course Title	**FKM630 - Microwave-Assisted Drug Synthesis Methods**
Course Type	II. SEMESTER
Laboratory + Practice	3+0
ECTS	**7.5**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. AHMET ÖZDEMİR

Mode of Delivery	Face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	There is no recommended courses.
Recommended Resources	1) G. Brahmachari, Green Synthetic Approaches for Biologically Relevant Heterocycles (Second Edition) Volume 1: Advanced Synthetic Techniques, Pages 49-110, 2021.2) J.M. Kremsner, A. Stadler, A Chemist's Guide to Microwave Synthesis 3rd Edition, Austria, January 2018.
Work Placement	Not applicable

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Introduction to Microwave Energy	
Week - 2		History of Microwave	
Week - 3		Evolution of Microwave Use	
Week - 4		Fundamentals of Microwave Chemistry	
Week - 5		Properties of Microwaves and Interaction with Matter	
Week - 6		Microwave Heating Theory and Mechanisms	
Week - 7		Microwave Synthesis Methods	
Week - 8		Microwave Solvent Interaction and Superheating Effect	
Week - 9		Internal Structure and Working Principle of Microwave Oven	
Week - 10		Structure of Microwave Devices; Single and Multimode Systems	
Week - 11		Benefits of Microwave Use	
Week - 12		Examples of Reactions Using Microwave	
Week - 13		Biological Effects of Microwaves	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 14		Microwave Device Applications	

Learning Outcomes

#	Learning Outcome
1	Microwave Energy is defined.
2	The meaning of quality in laboratory practice is explained.
3	The safety of Microwave equipments are checked properly.
4	Methods of protection from microwave accidents are explained.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.