Course Syllabus

Code - Course Title	**FKG533 - Practical Techniques in Pharmacognosy**
Course Type	II. SEMESTER
Laboratory + Practice	2+1
ECTS	**6.0**
Language of Instruction	Türkçe
Course Type	Elective Courses
Course Instructor(s)	PROF. DR. GÜLMİRA ÖZEK

Mode of Delivery	The lesson will be by given face to face education manner.
Prerequisites	The student should regularly attend the lessons and take part in solving of problems on lab. works.
Courses Recomended	no
Recommended Resources	G. Özek, \"Farmakognozide pratik çalışma teknikleri\" ders notları.
Work Placement	Farmakognozi Anabilim Dalı Araştırma Laboratuvarı

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Creation of research strategy. Planning and application of experiment	
Week - 2		Glassware and other materials and their properties. Weighinn process. Preparation of reagents and solvents.	
Week - 3		Appliances and operational issues of measurement devices and apparatus used in pharmacognosic researches (application). Hydrodistillation in Clevenger apparatus, continuous solvent extraction in Soxhlet apparatus. Evaporation under reduced pressure.	
Week - 4		Preparation of solution (molarity, normality, percentage)(lab. work). Preparation of reagents (lab. work). Preparation of sample for distillation, for extraction (lab. work)	
Week - 5		Obtaining of extracts with different techniques from plant material (lab. work). maceration, ultrasound assisted extraction, micrpwave assisted extraction.	
Week - 6		Obtaining of extracts with different techniques from plant material (lab. work) Accelerated solvent extraction.	
Week - 7		Preparation of extracts. Drying of extracts. Preservation of extracts. (lab. work) Lyophilization.	
Week - 8		Fractionation of extracts, isolation of compound, column chromatography. Important ıssues on extraction procedure.	
Week - 9		Adsorbents used in chromatography, their properties (Lab. work). Application of Thin Layer Chromatograhy, High Performans Thin Layer Chromatography techniques. General issues important on chromatographic and extraction processes (lab. work)	
Week - 10		Keeping of the registry in laboratory work. Coding in practical studies.	

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Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 11		Considerations to be followed in the handling of reliable results. Repeatable, practical work.	
Week - 12		Preparation of research reports.	

Learning Outcomes

#	Learning Outcome
1	The student will learn the apparatus, appliances and techniques used in pharmacognosic researches.
2	The student will learn the properties of glasswares and other materials used in laboratory works.
3	The student will apply the rules used for weighing.
4	The student will remember the rules applied for preparation of chemical material, reagent and solvents.
5	The student will remember the techniques applied for quality control in pharmacognosic industry.
6	The student will available prepare the extracts by different techniques from plant material.
7	The student will available to dry the plant extracts. The student will learn the issues important on preservation of the extracts.
8	The student will learn the techniques and methods used for fractionation and isolation of compounds.
9	The student will be able to implement industrial production processes of plant origin products. The student will remember the general issues to be considered in the extraction works. The student will applied thin layer chromatography, high performans thin layer chromatography.
10	The student will remember the issues to be considered in industrial production of plant products.
11	The student will learn recording of laboratory experiments and will practically apply coding of works.
12	The student will apply the rules to be followed in the handling of reliable results, will prepare reports about research results.

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

AKTS Workload

Activity	Duration (Hour)	Count	Workload
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.