PLEASE KEEP THIS COURSE SYLLABUS FOR FUTURE REFERENCE AS IT CONTAINS IMPORTANT INFORMATION

EASTERN MEDITERRANEAN UNIVERSITY
DEPARTMENT OF PHARMACY

COURSE CODE	*PHAR403*	**COURSE LEVEL**	*Semester 7*	
COURSE TITLE	Pharmacognosy III	**COURSE TYPE**	University Core – Pharmacy	
CREDIT VALUE	(2+3) 3,5	**ECTS VALUE**		
PREREQUISITES	None	**COREQUISITES**	None	
DURATION OF COURSE	One semester	**Semester and year**	**SPRING**	**2017 - 18**

COURSE WEB PAGE	

CATALOGUE DESCRIPTION
Herbal medicines, Drug discovery from medicinal plants, Quality controls of herbal medicines, Standardization, Biosynthesis, Microbial biotransformation, Vitamins, Marine pharmacognosy, Bioactive metabolites from entophytic fungi

AIMS & OBJECTIVES
(Relationship of Course to Program Outcomes)
This course is designed as a one-semester course for semester 7 pharmacy students. It offers the opportunity to the student to develop:

- the understanding the drug discovery from medicinal plants.
- the understanding the standardization of the herbal extracts.
- the understanding the importance of biosynthesis and microbial biotransformation for pharmacognosy.
- the understanding the importance of marine pharmacognosy.
- the understanding the importance of endophytic fungi in pharmacognosy
- the knowledge about the natural products from marine sources

LEARNING OUTCOMES

- Define the herbal medicines and medicinal plants
- Understand the culture of medicinal plants
- Understand the harvesting, drying and storage of medicinal plants and herbal materials
- Use the quality control assay for the medicinal plants and products
- Understand the drug discovery from medicinal plants
- Understand the standardization of herbal extracts
- Understand the biosynthesis
- Identify biosynthesis proses for every natural secondary metabolites
- Understand the microbial biotransformation
- Identify the biomarkers used in the transformation
- Understand the importance of vitamins
- Understand the vitamin types and their sources
- Understand the importance of marine sources for pharmaceutical industry
- Understand the importance of endophytic fungi for pharmaceutical industry
- Identify the pharmaceutically important marine sources for pharmaceutical industry
- Identify the pharmaceutically important endophytic fungi metabolites for pharmaceutical industry
- Handle chemicals properly, performing experiments as a team safely, and writing lab reports
- Use good scientific English for written and oral communication

ASSESSMENT (Exams & Home-works) (See also Grading Criteria)

Exams:

- There will be one midterm exam, and one final exam. Final exam will include questions from all topics covered in the whole semester. There will be 10% questions from the lab experiments in only final exam.
- Mobile phones and tablets are not allowed to be used in the exams as a calculator.
- Students can see their papers in the first 10 days following the announcement of results, but not later than that.
- All assessment (including lab report and lab exams) marks will be announced via the student portal; they will not be announced on notice boards or elsewhere.
- Exams regarding the lab sessions are explained in the Laboratory section of this course outline.

Non-marked Assignments for self-study:

- -

Make-up Exams:

Caution:

- We strongly recommend the students not to miss exams on their regularly scheduled dates.

Make-up Exam:

- There will be ***no make-up exam for the lab quizzes and lab final***.
- **Only those who miss the regular midterm or final exam will be allowed in the makeup exam.**

Objections:

Students' may inspect their marked exam papers from their course instructors. According to by-laws, these requests should be made within 10 days of announcement of marks. Objections to any grade must first be made to the instructors. If still unsatisfied students may petition the head of department.

Method of Assessment:

Midterm I	45 %
Laboratory work	5 %
Final	50%

ATTENDANCE

Lectures:

- The students are expected to attend all the lectures (maximum of %30 absence). Failure to fulfil this criterion may result with an "NG" grade. (See the Grading Criteria).
- Attendance is taken regularly. The instructor may take the attendance in the first or the second hour of a two-period session.
- Each student can follow his/her attendance records from the on-line attendance follow-up system in portal.

Lab sessions:

- Missing 20% lab session results in failure from Phar403 with an NG grade.

LABORATORY

- Laboratory work is compulsory.
- Ten experiments will be done during the semester with one-week intervals. Missing 20% experiments will result in failure in PHAR403 with an NG grade.
- Students are expected to own a copy of PHAR403 Lab Manual, which is available in the bookstore (Deniz Shop) in the campus.
- Students who are late by 10 or more minutes will NOT BE ALLOWED in to the LAB.
- Students must attend lab only on the dates allocated to their group.
- Calculators are allowed and necessary.
- Students are allowed to the lab after signing a statement of confirmation that they have read and understood the lab safety rules.
- Students are not allowed to the lab without a lab coat. Lab coats must be worn at all times in the lab. Lab coats are available in the bookstore or in the shops around the Campus.
- Long hair must be neatly tied up.
- Eating, drinking chewing gum and smoking are hazardous and NOT ALLOWED in the LAB.
- Mobile phones are strictly forbidden and must be turned off.
- There will be a quiz about the experiment to be performed two times in the each semester. Sharing of calculator, pencil or eraser during a lab quiz is NOT ALLOWED. A student caught cheating in the Quiz will have his/her quiz cancelled and receive ZERO marks!
- Each student is expected to submit a lab report after the experiment. No excuses are accepted for late submission.
- Do not leave the lab during lab sessions without informing the Lab teachers.
- There will be a lab final exam at the end of the semester.
- Lab quiz, report and final marks will be announced via the announcement board
- Rules and regulations are summarised in more detail in the lab manual. Lab assistants will provide further information and guidance.

GRADING CRITERIA	
A to F	Letter grades are determined according to class average grade. Estimated grades are (A)-90, (A-)-85, (B+)-80, (B)-75, (B-)-70, (C+)-65, (C)-60, (C-)-55, (D+)-53, (D)-50, (D-)-40, (F)-0. These estimated grades can be change according to class situation after exams.
NG **nil grade**	Conditions that will lead to NG grade. i) Not attending any two exams (midterm or final), including make-up and resit exams. ii) Not attending 20% lab sessions.

Important notice to all students repeating the course for a better grade:
Whatever grade you receive at the end of this semester will replace your previous grade.

TEXTBOOK/S

LEARNING / TEACHING METHOD

- Regular classroom lectures
- Weekly regular lab sessions

COURSE CONTENT AND LECTURE SCHEDULE		
Week	**Date**	**Topics**
1		Herbal medicines
2		Drug discovery from medicinal plants
3		Quality control methods for medicinal plants and products
4		Standardization
5		Biosynthesis
6,7		**Midterm**
7		Microbial biotransformation
8,9		Vitamins
10		Marine pharmacognosy I
11		Marine pharmacognosy II
12		Bioactive metabolites from endophytic fungi I
13		Bioactive metabolites from endophytic fungi II
14		
15-16		**Final Exam**

LABORATORY / TUTORIAL SCHEDULE				

COURSE WEB PAGE

ACADEMIC HONESTY – PLAGIARISM

Cheating is copying from others or providing information, written or oral, to others. Plagiarism is copying without acknowledgement from other people's work. According to university by laws cheating and plagiarism are serious offences punishable by disciplinary committee ranging from simple failure from the exam or project, to more serious action (letter of official warning, suspension from the university for up to one semester). Disciplinary action is written in student records and may appear in student transcripts.