

## *The Hebrew University of Jerusalem*

### *Syllabus*

## ***NATURAL MATS. FROM PLANTS IN HUMAN NUT. & HEALTH - 65644***

*Last update 25-12-2023*

*HU Credits:* 2

*Degree/Cycle:* 1st degree (Bachelor)

*Responsible Department:* Nutrition Sciences

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* Rehovot

*Course/Module Coordinator:* Prof. Zohara Yaniv Bachrach

*Coordinator Email:* [zoharayb@netvision.net.il](mailto:zoharayb@netvision.net.il)

*Coordinator Office Hours:* coordinated

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Teaching Staff:

Prof Zohara Yaniv-Bachrach

Course/Module description:

Introduction and terminology. The history of the use of healing plants in different cultures since the beginning of civilization. The principles of ethno botany as a tool to study folk medicine in Israel, in the Mediterranean area and in general.

Biological and chemical aspects of Medicinal Plants followed by a study of active plant metabolites and their physiological activity.

The therapeutical effect of medicinal plants and their products on the human body as studied in different body functions:

Digestive system; CNS; cardiovascular system; respiratory system; cancer; etc.

A special chapter will be devoted to herbs, spices and aromatic plants.

Course/Module aims:

1. To get a basic knowledge about the use of medicinal plants in modern medicine.
2. To be introduced to the new methods of medicinal plant research.
3. To acquire a critical viewpoint about the possible pitfalls and the truths in this field.
4. to be able to evaluate interactions between medicinal drugs and herbal ones.

Learning outcomes - On successful completion of this module, students should be able to:

1. To identify evidence-based information in the use of Medicinal Plants,
2. To analyze and appraise correct information.
3. To assess, compare, and evaluate the flow of information regarding health issues.

Attendance requirements(%):

50

Teaching arrangement and method of instruction: lectures,

Course/Module Content:

Lecture Schedule:

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## *Lesson Topic Date*

### *Introduction:*

*Historical aspects, terminology and definitions. Week 1*

*The basics of Ethnobotanical research.*

*Example: ethnobotanical research in Israel Week 2*

*Biological aspects of natural active compounds present in plants. Week 3*

*Chemical aspects of plants' natural compounds- part 1.*

*(alkaloids, glycosides). Week 4*

*Chemical aspects of plants' natural*

*compounds- part 2.(tannins, flavanoids, etc). Week 5*

*Essential oils and herbs- medicinal aspects Week 6*

*Spices from around the world- medicinal aspects. Week 7:*

*The use of medicinal plants in modern medicine for heart and blood problems.*

*Week 8*

*The use of medicinal plants in modern medicine for digestive problems.*

*Week 9-10*

*The use of medicinal plants for the nerve system.*

*Week 11*

*The use of plants in cancer research, prevention and curing.*

### *Required Reading:*

#### *Bibliography*

1. Evans WC. 2002. *Trease and Evans Pharmacognosy* 15th ed. Edinburgh UK.
2. Bruneton J. 1995. *Pharmacognosy, Phytochemistry, Medicinal plants*. Lavoisier, Paris.
3. Yaniv Z and Bachrach, U. *Handbook of Medicinal Plants*. 2005. The Haworth Press. NY..
4. Barnes J Anderson LA Phillipson JD 2002. *Herbal Medicine* 2ed ed. Pharmaceutical Press.
5. Blumenthal M Goldberg A Brinckmann J. 2000. *Herbal medicine- Expanded Commission E Monographs*. Newton (MA): Integrative Medicine Communications.
6. Capasso F., Gaginella, TS, Grandolini, G and Izzo, AA. 2003. *Phytotherapy. A quick reference to herbal Medicine*. Springer-Verlag Press. New-York.
7. פארן מ. וא. טשרני 1997. צמחי מרפא ברפואה המודרנית. כרך א, ב אקדמון, .
8. פארן מ. 2003. ספר רפואת הצמחים. יריד הספרים. ירושלים. .
9. פלביץ ד. וז. יניב. 2008. צמחי המרפא של ארץ ישראל. תמוז מודן.
10. פלביץ ד. יניב ז. דפני א. פרידמן י. 1985. סקר צמחיית הבר בישראל כמקור לתרופות. המועצה הלאומית למחקר ולפיתוח.

### *Additional Reading Material:*

*scientific publications taken from the current literature.*

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Grading Scheme:

*Written / Oral / Practical Exam 100 %*

Additional information:

*Some guest lectures will be presented.*