

## 26733 - Anatomical-Physiological Bases for Acupuncture

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	104 - Facultad de Medicina
<b>Degree</b>	304 - Degree in Medicine
<b>ECTS</b>	4.0
<b>Course</b>	5
<b>Period</b>	First semester
<b>Subject Type</b>	Optional
<b>Module</b>	---

### 1. Basic info

#### 1.1. Recommendations to take this course

- To take this course , students must have an interest in the knowledge of other therapeutic approaches , not by strangers are ineffective , and that currently can fit into our environment as adjunct therapy .

#### 1.2. Activities and key dates for the course

Every school Wednesday , the first four months (from September 21 to January 12 ) the different teaching sessions ( theoretical or practical ) will be held . Once practice groups made &#8203;&#8203;a specific timetable for each group will be designed.

- Theory: 15:00-17:00 hours (School of Medicine)
- Laboratory Practice: 17:00-18:00 (School of Medicine )
- Clinical practice : Monday through Thursday, 15:30-19:30 (private clinic). Mondays and Wednesdays, 9:30-12:30 (Red Cross hospital).
- Delivery of Final Project , should be done on paper (secretary of the Department of Human Anatomy and Histology ) or via e- mail (PDF or Word) , the responsible teacher. And delivery should not be later than January 30, 2016

### 2. Initiation

#### 2.1. Learning outcomes that define the subject

The student, for passing this subject, should demonstrate the following results:

- Understand the anatomical and physiological bases and mechanisms of action of acupuncture.
- Know the topographic location and functions of acupuncture points, based on their neural and muscle relationships.
- Know the scientific basis of acupuncture, intelligible haciéndosela without having to resort more to the neuro-physiological theories. Promoting from this, working groups on research in the field of acupuncture, to thereby integrate TCM. in West M. concept.
- Know the basic application of acupuncture in daily medical practice.
- Getting integrate into their professional activity acquired knowledge, expanding the tools and resources needed for a more comprehensive view of the patient.
- Get the most of the terminology has to base its technical expression as a doctor.
- Understanding with Western medical terminology, the foundations of ancient Chinese theories.
- Encourage the attitude of scientific curiosity that drives him to greater interest of knowledge.
- Adopt a critical attitude texts related to the agenda.

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### 2.2.Introduction

Acupuncture is a therapeutic technique included in the set of Chinese Traditional Medicine. In recent years it has evolved in our area, favored by the involvement of physicians and researchers in search of their mechanisms of action. These have helped to phase out the halo of "esoteric" sometime presented, giving condition of science. His relationship with the nervous system, and more specifically modulating this through the stimulation of the PNS, is the basis of their mechanisms of action.

Knowledge of these basis by students, it is important to recognize their therapeutic possibilities and use or recommend their use in their future professional activity.

Acupuncture recognized as particularly useful in the treatment of musculoskeletal system, or in the regulation of organ functions, through Vegetative N.S., this subject is addressed primarily to train students in this area.

### 3.Context and competences

#### 3.1.Goals

#### 3.2.Context and meaning of the subject in the degree

#### 3.3.Competences

#### 3.4.Importance of learning outcomes

### 4.Evaluation

### 5.Activities and resources

#### 5.1.General methodological presentation

The learning process that is designed for this subject is based on the following:

The student devoted to the subject a total of 100 hours over:

Theoretical, consisting of lectures (20 hours) sessions. The student participation and critical intervention is promoted. And problem-solving groups and cases (5 hours), in the form of "round tables", where the student must actively participate. Laboratory Practice (15 hours), in small groups where the training of students takes hold in locating acupuncture points and using basic techniques puncture.

I work on a model "thesis" (10 hours)

Study (50 hours)

#### 5.2.Learning activities

- Attendance of theory, where basic notes to be delivered at the beginning of the course will be expanded, and references will study and learning. The exhibition is accompanied by videos and power point.
- Assistance to laboratory practices in small groups where practically apply the concepts presented in the lectures. Priority being the location of points and knowledge of its relationship with peripheral nervous system. Application of needle and electro-stimulation technique. previous demonstration tutor and videos of other authors. disposable material is used and all measures of risk prevention enforceable apply. All students will be informed about the risks that may have the realization of the practices of this subject, and if dangerous products are handled and what to do in case of accident, and must sign a commitment to comply with labor standards and safety carry them out. For more information, see the information for students Unit Occupational Health and Safety:  
<http://uprl.unizar.es/estudiantes.html>
- Voluntary Assistance acupuncture clinic in groups 1- 2 people. Where they will observe the daily dynamics of such , with real patients. Any student who perform these practices, to be able to manage personal or medical history of

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patients, is required to maintain the confidentiality of the same data.

### 5.3. Program

#### THEORY

(At the beginning of the course the students will be provided with a dossier and abstracts of matter to impart)

#### THEORIES BASIC TRADITIONAL CHINESE MEDICINE

History of Traditional Chinese Medicine and Acupuncture. Definition

Basic theories of Traditional Chinese Medicine. Yin Yang. Five Elements. Organs. Meridians.

Materials and techniques of acupuncture. Needle. Electroacupuncture. Thermotherapy (moxibustion)

#### ANATOMOPHYSIOLOGICAL ACUPUNCTURE BASIS

Basic neuroanatomy of Acupoint

Physio-pathological functioning of acupoint. Dynamic phases of acupoint. Physical properties of the acupoint.

Electrophysiology acupoint.

Peripheral mechanism of acupuncture. Neurochemical mechanisms of acupuncture analgesia

Neural basis of Acupuncture: Central mechanisms. Humoral, neural and immune response to Acupuncture

Modern acupuncture: Integrated Neuromuscular System acupoint. neuroanatomical homeostatic description Acupoints.

Symptomatic points. Paravertebral points. Early application of spinal segmentation in acupuncture therapy.

Introduction to Practical Application of Neuromuscular acupoint Integrated System. Points "Trigger" (Tigger points).

Application of acupuncture in treating pain.

#### PRACTICAL PROGRAM

Practice needle puncture and handling (laboratory).

Clinical Practice (Acupuncture Service - Red Cross Hospital in Zaragoza). The student will attend the activity in this center, medical history, treatment application by the professional, .. etc.

#### WORKSHOPS

Location of acupuncture points (Anatomy and dissection room)

#### TUTORIALS

Counseling of students in literature search and fitness of purpose of course work, research model.

### 5.4. Planning and scheduling

Lectures and practice groups will be held :

- First semester of the fifth grade. Every Wednesday , theory 15: 00-17 : 00 hours ; practice 17: 00-18 : 00 hours. Corresponding medical school classroom .
- The clinical practice during the week, in the mornings and late at Red Cross Zaragoza hospital (Acupuncture Service) and collaborating in different clinics acupuncture in the city of Zaragoza. Voluntary activity

The distribution of activities will be :

- Master Class group 1 (20 hours): The first 5 Wednesday of the semester ninth grade.
- 3 groups of problem solving and cases (5 hours) : Groups of 1/3 of the student body in 2 sessions ( 3 and 2 hours). In the following Wednesday of the semester.
- 7 groups of laboratory practice ( 15 hours) : sessions 1 and 2 hours, the second half of the semester.
- Work-thesis (10 hours)
- Study ( 50 hours)

### 5.5. Bibliography and recommended resources

- Vecino Ferrer, Juan Antonio. Acupuntura tradicional china / Juan Antonio Vecino Ferrer Zaragoza : Mira editores, 2001
- Ma, Yun-tao. Biomedical acupuncture for pain management : an integrative approach / Yun-tao Ma, Mila Ma, Zang Hee Cho St. Louis, (Missouri) : Elsevier Churchill Livingstone, cop. 2005
- Ping, Li. El gran libro de la medicina china / Li Ping . - 4ª ed. Madrid : Martinez Roca, D.L. 2006
- Maciocia, Giovanni. Les principes fondamentaux de la medecine chinoise : [manuel à l'usage des acupuncteurs et des phytothérapeutes] / Giovanni Maciocia ; préface du Su Xi Ming ; traduit de l'anglais par Sylviane Burner et Jérôme Taillandier [Bruxelles] : Satas, 1992
- Liu Gongwang. Acupoints and Meridians. Huaxia Publishing House, 1997
- Val Hopwood. Acupuncture in Physiotherapy. Edit. Butterworth Heineman, 2004

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- J. Bossy. Atlas anatómico de los puntos de acupuntura. Edit. Masson, 1984
- Cheng Xinnong. Chinese Acupuncture for Pain Management. Edit. Elsevier, 2005. Beijing
- Eric Marié. Compendio de medicina china : Fundamentos, teoría y práctica.. - Edit. Edaf, 1998. Madrid
- Fundamentos de acupuntura y moxibustión de China. - Edit. De lenguas extranjeras, 1984. Beijing
- Jacqueline Filshie. Medical Acupuncture. - Edit. Churchill Livingstone, 1998
- Bossy, J.. Nosología tradicional china y acupuntura : relación entre las nosologías moderna y tradicional china.