

## **26785 - Basic Principles of Anesthesia and Resuscitation. Urgent Care for Critical Patients**

### **Información del Plan Docente**

<b>Academic Year</b>	2017/18
<b>Faculty / School</b>	104 - Facultad de Medicina
<b>Degree</b>	304 - Degree in Medicine
<b>ECTS</b>	4.0
<b>Year</b>	5
<b>Semester</b>	First semester
<b>Subject Type</b>	Optional
<b>Module</b>	---

### **1.General information**

#### **1.1.Introduction**

#### **1.2.Recommendations to take this course**

#### **1.3.Context and importance of this course in the degree**

#### **1.4.Activities and key dates**

### **2.Learning goals**

#### **2.1.Learning goals**

#### **2.2.Importance of learning goals**

### **3.Aims of the course and competences**

#### **3.1.Aims of the course**

#### **3.2.Competences**

### **4.Assessment (1st and 2nd call)**

#### **4.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **5.Methodology, learning tasks, syllabus and resources**

#### **5.1.Methodological overview**

Learning course for this subject is based on:

- Theoretical lessons will be lead following classical oral presentation for all students (27 hours)

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- Practical lesson: the methodology follow is based on a participate group students and it will held in the research seminars in the morning ( 8 hours in four days) at the University of Medicine. And also workshops at he Miguel Servet Univesitary Hospital (Unidad de Formación) in the evening ( 4 p.m. to 8 p.m.).

The workshops will be in small groups that we splip according to the number of the students.

### **5.2.Learning tasks**

The course includes 4 ECTS

### **5.3.Syllabus**

The course will address the following topics.

- Theory sessions:

1. Topic 1. Subject presentation:introduction and History of Anaesthesiology
2. Topic 2. Farmacology I:inhalation anesthesia and nonopioid intravenous anesthetics
3. Topic 3. Farmacology II:opioids and muscle relaxants
4. Topic 4. Evaluation of the patient and preoperative preparation.Preoperative medication
5. Topic 5. Monitoring the anesthetized patient.Monitoring cardiac and respiratory function
6. Topic 6. Anesthesia systems. Control of the respiration
7. Topic 7. Postanesthesia Recorevy. Management of postoperative period
8. Topic 8. Anaesthesia and electrolytes.Metabolism of sodium,potasium,cloro and acid-base balance
9. Topic 9. Fluid replacement therapy.Colloids and crystalloids
10. Topic 10. Outpatient Anaesthesia.Indications. Sedation
11. Topic 11. Anesthetic complications.Latex allergy.Anaphilactic shock.Malignant Hyperthermia
12. Topic 12. Cardiopulmonary resuscitation basic life support and advanced cardiac life support
13. Topic 13. Management of the airway. Indications.Intubation in awake patient

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14. Topic 14. Syndrome of pulmonary aspiration. Anaesthetic management
15. Topic 15. Enteral and parenteral nutrition
16. Topic 16. Regional Anaesthesia. Epidural and spinal anaesthesia. Peripheral nerve blockade. Local anesthetics
17. Topic 17. Management of acute postoperative pain. Chronic pain management. Treatment of cancer pain and terminal patient
18. Topic 18. Pediatric Anaesthesia
19. Topic 19. Anesthesia for General Surgery
20. Topic 20. Anesthesia for Orthopedic and Trauma Surgery
21. Topic 21. Anesthesia for Cardiac and Vascular Surgery
22. Topic 22. Anesthesia for Genitourinary Surgery
23. Topic 23. Anesthetic considerations by coexisting diseases
24. Topic 24. Trauma patient management
25. Topic 25. Anesthesia and Shock
26. Topic 26. Anesthesia for organ transplantation. Organs donors. Brain death
27. Topic 27. Critical Care Unit. Entrance indications. Diagnosis and treatment of complications

- Practical sessions:

1. Maintenance of a patent upper airway
2. Management of supraglottic device of ventilation
3. Management of airway and difficult airway
4. Channeling of venous peripheral lines

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5. Placement of nasogastric tube
6. Cardiopulmonary Resuscitation. Basic life support
7. Advanced cardiac life support
8. Treatment of complications in postoperative immediate
9. Trauma patient management. Transport of patients
10. Monitoring respiratory function
11. Monitoring cardiac function
12. Monitoring neurologic
13. Assistance in Critical Care Unit of the patient with cardiac pathology
14. Assistance in Critical Care Unit of the patient with respiratory pathology
15. Assistance in Critical Care Unit of the patient with renal pathology
16. Assistance in Critical Care Unit of the patient with difficult airway
17. Criteria of discharge of the Critical Care Unit

### **5.4.Course planning and calendar**

The theoretical lessons will be adapted to the academic calendar being its schedule of 10 a.m. to 11 a.m. for five weeks from 22nd October 2017 to 23th November 2017.

The presentation of the autonomous work will be realised during the following week to theoretical lessons.

The practical lessons will consist:

- 4 research Seminars of 2 hours in schedule of 11.30 a.m. to 13.30 a.m., the Thursday or Friday ( students will be divided into 2 groups)

- 2 Workshops in the Miguel Servet University Hospital Training Unit in schedule of 16 p.m. to 20 p.m. ( the days will be

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agreed at the beginning of the course)

### 5.5. Bibliography and recommended resources

- BB** Anestesia / editado por Ronald D. Miller ; editores asociados, Neal H. Cohen... [et al.] ; [revisión científica, Luis Fernando Simón... (et al.)]. - 8ª ed. Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier, D.L. 2015
- BB** Hernández Martínez, Alberto. Situaciones clínicas en anestesia y en cuidados críticos. Barcelona: Médica Panamericana, 2013
- BB** Levine, Wilton C. Procedimientos en anestesia del Massachusetts General Hospital. 8ª ed. Barcelona: Médica Panamericana, cop. 2013
- BB** Morgan, G. Edward. Anestesiología clínica / G. Edward Morgan, Maged S. Mikhail, Michael J. Murray ; traducción, José de Jesús Arredondo Sandoval ; editor responsable, Martín Lazo de la Vega Sánchez . 4ª ed. México [etc.] : El Manual Moderno, cop. 2007
- BB** Torres, Luis Miguel, dir. Tratado de anestesia y reanimación. Madrid: Arán, 2001

LA BIBLIOGRAFÍA ACTUALIZADA DE LA ASIGNATURA SE CONSULTA A TRAVÉS DE LA PÁGINA WEB DE LA BIBLIOTECA <http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>