



**University of the Philippines Manila
College of Medicine
Department of Anesthesiology – Division of Pain**



**Anesth 250 Course Guide
LU 5 Academic Year 2022-2023**

A. Course Catalogue

1. Course number	Anesth 250
2. Course title	Integrated Clinical Clerkship in Anesthesiology I (Introduction to Pain Management)
3. Course description	Supervised assessment and management of pain patients in the out-patient setting
4. Pre-requisite	None
5. Semester offered	1 week, 1 st semester of AY 2022-2023
6. Course credit	1.5 units
7. Number of Hours	40 hours
8. Mode of Delivery	Blended Learning, online via UVLE + Limited FTF
9. Course Coordinators:	Dominic D. Villa, MD, DPBA, FPSA Evangeline K. Villa, MD, DPBA, FPSA

B. Course Description

Anesthesia 250 is a 1-week rotation for YL V (Integrated Clinical Clerks) medical students. The course is an introduction to pain management with emphasis on the basics such as definition, anatomy, and pathophysiology of pain. It also includes classification of pain based on chronicity and mechanism, pain assessment, and modalities of treatment, including pharmacologic, non-pharmacologic, and interventional procedures. Traditionally, the course was taught through face-to-face interactions between the students and faculty members by way of lectures, preceptorials, small group discussions, and student-reports. Students were also given opportunities to assess chronic pain patients in the Pain Clinic, Cancer Institute, and the PGH Wards. The students were also able to observe the conduct of peripheral nerve blocks for analgesia in the PGH Operating

Rooms, and assess acute pain patients in the PGH Post Anesthesia Care Unit and PGH OPD-Recovery Room.

This year, as the threat of COVID-19 still precludes us from traditional learning, the course has been modified to allow students to still continue learning through the course without the danger of exposure to the virus.

Online modules and activities, primarily through recorded videos, together with faculty guidance and mentoring, will hopefully enable the students to equip themselves with the basic knowledge in pain management to prepare them for their clinical rotations next year.

C. Course Content

Objectives	Topic	Content	LO	Teaching-Learning Activity	Resources/ Evaluation
1. Discuss pain in terms of its evolution and biopsychosocial dimensions.	Pain perspective through time Definition of pain Meaning of pain	<ul style="list-style-type: none"> ▫ Pain theories ▫ IASP definition of pain ▫ Biopsychosocial dimensions of pain 	LO 1,2,4, 7,10 I	<ul style="list-style-type: none"> ▫ Lecture ▫ Viewing of videos ▫ Self-study ▫ Reflection on topic ▫ VCE ▫ ELA 	<ul style="list-style-type: none"> ▫ UVLE access ▫ Video lecture (module 1: Definition of Pain) ▫ Video (The Meaning of Pain – Teal Swan) ▫ SIM ▫ Any Pain Textbook/Journals ▫ Quiz ▫ Reflection Paper/Creative Output

Objectives	Topic	Content	LO	Teaching-Learning Activity	Resources/ <i>Evaluation</i>
2. Identify the components of the most common pain pathways.	Anatomy of pain	▫ Pain pathways	LO 1,2,4, 7,10 I	<ul style="list-style-type: none"> ▫ Lecture ▫ Viewing of videos ▫ Self-study ▫ VCE ▫ ELA 	<ul style="list-style-type: none"> ▫ Video lecture (module 2: Anatomy of Pain) ▫ Video:(PAIN! Physiology - The Ascending Pathway, Descending Pain Pathway and the Substantia Gelatinosa - Armando h.) ▫ Video: (Nociceptors - An Introduction to Pain - Armando h.) ▫ SIM ▫ Any Pain Textbook/Journals ▫ Quiz
3. Understand how pain can be transmitted and modulated.	Physiology of nociception and modulation	<ul style="list-style-type: none"> ▫ Nociception ▫ Pain modulation 	LO 1,2,4,7, 10 I	<ul style="list-style-type: none"> ▫ Lecture ▫ Viewing of videos ▫ Self-study ▫ VCE ▫ ELA 	<ul style="list-style-type: none"> ▫ Video lecture (module 3: Physiology of nociception and modulation) ▫ Video: (What is the Gate Control Theory of Pain - How Pain Perception Works - corporis) ▫ SIM ▫ Any Pain Textbook/Journals ▫ Quiz

Objectives	Topic	Content	LO	Teaching-Learning Activity	Resources/ Evaluation
4. Differentiate acute and chronic pain.	Acute and chronic pain	<ul style="list-style-type: none"> Definition of acute and chronic pain Physiologic and psychologic effects of acute and chronic pain Transition from acute to chronic pain 	LO 1,2,4,7,10 I	<ul style="list-style-type: none"> Lecture Viewing of videos Self-study VCE ELA 	<ul style="list-style-type: none"> Video lecture (module 4: Acute pain versus chronic pain) Video: (Chronic Pain – Dr. J. Campbell) Video: (Understanding pain in 5 minutes – Brainman) SIM Any Pain Textbook/Journals Quiz
5. Differentiate the types of pain based on patho-physiologic mechanisms.	Patho-physiologic mechanisms of pain	Definition, etiology, examples of <ul style="list-style-type: none"> Somatic Visceral Neuropathic Psychogenic 	LO 1,2,4,7,10 I	<ul style="list-style-type: none"> Lecture Viewing of videos Self-study VCE ELA 	<ul style="list-style-type: none"> Video lecture (module 5: Patho-physiologic mechanisms of pain) Video: (Abdominal Pain, Digestive System - Dr Matt & Dr Mike) Video: (Neuropathic pain- Dr. J.Campbell) SIM Any Pain Textbook/Journals Quiz
6. Assess pain using pain measurement scales	Pain assessment	<ul style="list-style-type: none"> Pain history taking Pain scales/tools (self-report) Pain scales/tools (behavioral) Multidimensional pain assessment tools 	LO 1,2,4,5,6,7,8,9,10,11 I, D, P	<ul style="list-style-type: none"> Lecture Viewing of videos Practice exercises using FLACC Self-study VCE ELA 	<ul style="list-style-type: none"> Video lecture (module 6: Pain assessment) Video: (Pain Clinic Patient Interview) Video: (Pain Assessment using FLACC + exercises –Dr. Villa) SIM Any Pain Textbook/Journals Quiz ELA SGD Attendance

Objectives	Topic	Content	LO	Teaching-Learning Activity	Resources/ Evaluation
<p>7.</p> <p>Formulate a treatment plan using pharmacologic and non-pharmacologic modalities</p>	Treatment of pain	<ul style="list-style-type: none"> ▫ Multimodal analgesia ▫ Multidisciplinary pain management ▫ WHO Pain Ladder ▫ Pharmacologic Treatment ▫ Non-pharmacologic Treatment ▫ Pharmacogenomics ▫ Interventional Pain Management 	<p>LO 1,2,4, 5,6,7, 8, 9, 10,11</p> <p>I, D, P</p>	<ul style="list-style-type: none"> ▫ Lecture ▫ Viewing of videos ▫ Self-study ▫ VCE ▫ ELA 	<ul style="list-style-type: none"> ▫ Video lecture (module 7: Treatment of Pain) ▫ Video: (Regional anesthesia video) ▫ Video: (Pharmacology - NSAID's-Armando h.) ▫ Video: (Aspirin and Prostaglandins - medicurio) ▫ Video: (Opioid Drugs, Part 1: Mechanism of Action -medicurio) ▫ Video: (Opioid Drugs, Part 2: Addiction and Overdose-medicurio) ▫ Video: (Pharmacogenomics: Genes and Medicine - medicurio) ▫ Video: (Acupuncture and moxibustion of traditional Chinese medicine- UNESCO) ▫ Video: (An Easy Way to Understand how Acupuncture Works to Heal the Body- Scott Martin Acupuncture) ▫ Video: (Cognitive Behavioral Therapy (CBT) Simply Explained - Pinnacle of Man)

					<ul style="list-style-type: none"> ▫ Video: (Meditation Addressing Pain- NCCIH) ▫ Video: (Understanding Pain Brainman chooses- Brainman) ▫ SIM ▫ Any Pain Textbook/Journals ▫ Quiz ▫ Case Discussion ▫ ELA SGD Attendance ▫ Creative Output
--	--	--	--	--	---

Learning Objectives

- LO1 Clinical Competence
- LO2 Effective Communication Skills
- LO3 Leadership and Management
- LO4 Generation and Utilization of Relevant Knowledge
- LO5 Inter-professional Practice
- LO6 System-based Approach to Health Care Practice
- LO7 Lifelong Personal & Professional Development
- LO8 Adherence to Professional and Ethical Standards
- LO9 Volunteerism, Nationalism and Internationalism
- LO10 Advocacy for Social Accountability
- LO11 Effective Teaching and Organizational Skills

Introduce (I)

Demonstrate (D)

Practice (P)

D. Grading System

- Quizzes: 30%
- Case Discussion: 30%
- Reflection Paper or
Creative Output: 20%
- ELA 10%
- Comprehensive Exam 10%
- 100%**

Assignment/Output Guides

A. Quizzes

Task: Complete the quiz per module to be able to proceed to the next module. There are 7 modules so there are 7 quizzes.

Procedure:

1. Watch all the module lecture videos and the assigned video/s related to module 1.
 2. Read the SIM.
 3. Answer the quiz.
 4. Proceed to next module after ticking the activity completion marker.
- Make sure you understood fully well the modules and assigned readings before answering the quiz.
 - The quiz will be in UVLE. Feedback regarding your score will be made visible once all quizzes have been completed.

B. Case Discussion

Task: Make a case discussion.

Procedure

The student will be given a one paragraph description of an index patient consulting in the outpatient pain clinic. Based on the provided information, the student is expected to:

1. diagnose accurately the assigned disease condition and state how he/she will rule in or out the differential diagnosis
2. explain the pathophysiology of the most likely definitive diagnosis of the patient
3. map out a diagnostic plan
4. create a therapeutic pharmacologic regimen for the patient
5. create a therapeutic non-pharmacologic regimen for the patient
6. create a therapeutic interventional regimen for the patient
7. state the cost of the therapeutic regimen described above
8. cite references appropriately using the Vancouver style
9. submit to faculty mentor's up.edu.ph email

Due Date

Dec. 16, 2022 6 PM

Evaluation Criteria/Rubric:

Criteria	3	2	1
Diagnosis	Diagnosis is accurate with discussion how differentials were excluded	Diagnosis is accurate with unsatisfactory exclusion/no mention of differentials	Diagnosis is inaccurate
Pathophysiology	Pathophysiology is fully discussed	Pathophysiology is partially discussed	Pathophysiology not discussed
Diagnostics	Relevant diagnostics fully discussed	Relevant diagnostics partially discussed	Diagnostics are lacking
Therapeutics	Pharmacologic, Non-pharmacologic, and interventional procedures including costs are fully discussed	Pharmacologic, Non-pharmacologic, and interventional procedures including costs are partially discussed	Therapeutic discussion is lacking
Mechanics	No grammatical, spelling, or punctuation errors	A few grammatical, spelling, or punctuation errors	Way too many for a medical student
Sources	All sources are accurately documented in the desired format (Vancouver style)	All sources are accurately documented, but many are not in the desired format (Vancouver style)	Too many sources are not documented accurately

C. Reflection Paper

Task

Write a reflection paper on “The role of gender, ethnicity, culture, religion and genetics in pain management of a Filipino patient”

Procedure

The student is expected to:

1. research on and integrate the role of the following factors in susceptibility to pain development and effectiveness of pain management in a Filipino patient:
 - a. gender
 - b. ethnicity
 - c. culture
 - d. religion
 - e. genetics
2. create an original integrative work, not merely cut and paste of information from references
3. cite references appropriately using the Vancouver style
4. submit to faculty mentor's up.edu.ph email

Due Date

Dec. 16, 2022 6 PM

Evaluation Criteria/Rubric:

Category	3	2	1
Organization	Information is very well organized with well-constructed paragraphs	Information is organized but paragraphs are not well-constructed	Information is disorganized
Quality of information	Information clearly relates to the main topic. It includes several supporting details and/or examples	Information clearly relates to the main topic. No supporting details and/or examples given	Information has nothing to do with the main topic
Mechanics	No grammatical, spelling, or punctuation errors	A few grammatical, spelling, or punctuation errors	Way too many for a medical student
Literature Review	Literature cited fully relevant to topic	Literature cited not fully contributory to the discussion	Literature cited irrelevant to the topic
Sources	All sources are accurately documented in the desired format (Vancouver style)	All sources are accurately documented, but many are not in the desired format (Vancouver style)	Too many sources are not documented accurately

D. Creative Output

Task

Make a **creative output** which could be in the form of:

art - musical piece in mp3 (song, instrumental music) or video presentation
in mp4 (dance, song, humor, photo poetry, magazine)

ON ONE OF THE FOLLOWING TOPICS: Examples are showcased in UVLE

- (1) Pain during COVID-19 times
- (2) Pain and humor
- (3) Pain and love
- (4) Pain and nutrition
- (5) Pain and coping
- (6) Pain and learning

Procedure

The student is expected to:

1. choose a topic from the list above that will be the theme of his/her creative output
2. provide an explanation accompanying the creative output allowing the teacher to relate the creative output to the chosen theme
3. submit an original work
4. submit to faculty mentor's up.edu.ph email

*** the key here is creativity (in short surprise us!)**

Due Date

Dec. 16, 2022 6 PM

Evaluation Criteria/Rubric:

Criteria	3	2	1
Creativity	Displays elements which are very unique and interesting	Displays elements which are interesting but not unique	Displays elements which are neither unique nor interesting
Production/Effort	Time and effort are fully evident in the execution of the piece	Time and effort are partially evident in the execution of the piece	Time and effort are not evident in the execution of the piece
Interpretation of Topic	Topic fully conceptualized and interpreted	Topic partially conceptualized and interpreted	Topic not conceptualized and interpreted
Over-all impact	High	Medium	Low

ENHANCED LEARNING ACTIVITY (ELA)

October 28, 2022

Friday

Buenafe Hall, UPCM

- Graded attendance (10% of the final grade)
- Whole day activity
- Students (n = 173) will be divided into AM (n = 87) and PM (n = 86) groups.
- Each group will have 17 or 18 students.
- Time allotted per station: 30 – 45 minutes

- **Station 1: Sono-anatomy**
 - To introduce the concept of sonoanatomy
 - To familiarize the students with the Ultrasound (UTZ) machine
 - To differentiate the different UTZ probes commonly used
 - To outline the preparatory steps prior to doing PNB
 - To give the students a hands-on experience using the UTZ machine
 -
- **Station 2: Peripheral Nerve Block**
 - To introduce the concept of PNB
 - To discuss commonly performed PNB in Pain Management
 - To discuss UTZ – guided and Nerve Stimulator – guided PNB
 - To familiarize the students with the Drugs/Local Anesthetics (LA) used in PNB
 - To outline the preparatory steps prior to doing PNB
 - To show an actual PNB performance
- **Station 3: PCA (IV and Epidural)**
 - To introduce the concept of PCA
 - To familiarize the students with the PCA machine
 - To discuss commonly used medications in PCA
 - To differentiate PCA – IV and PCA – Epidural
 - To outline the steps in setting up a PCA
- **Station 4: Neuraxial Analgesia**
 - To introduce the concept of NA
 - To discuss commonly performed NA in Pain Management
 - To familiarize the students with the Drugs/Local Anesthetics (LA) used in NA
 - To outline the preparatory steps prior to doing a NA
 - To show an actual NA performance
 -
- **Station 5: Acupuncture/Complementary Medicine**
 - To introduce the concept of Acupuncture and CM
 - To discuss commonly performed CM in Pain Management
 - To familiarize the students with the equipment/needles used in CM
 - To show an actual performance of C

VOLUNTARY CLINICAL EXPOSURE (VCE)

October 25-27, 2022

Tuesday – Thursday

Mechanics

- Not Graded
- Maximum of 6 students per Area
- 1 session in AM and 1 session in PM
- A sign-up sheet will be posted on Oct. 24 10 AM
- First sign, First Accommodate
- A student can only sign up for 1 Area
- No crossing over of Area
- Time in depends on Area
- Maximum of 2 hours per Area

- **Area 1: Pain Clinic**
 - To introduce the Pain Clinic – area, personnel, activities
 - To demonstrate an actual Pain interview

- **Area 2: Wards**
 - To familiarize the students with Cancer Institute, Charity and Pay Wards
 - To demonstrate actual patient rounds.

- **Area 3: PACU**
 - To introduce the PACU
 - To demonstrate actual pain assessment of post-op patients

- **Area 4: RCB OR**
 - To familiarize the students with intraoperative pain management

- **Area 5: RCB Block Room**
 - To familiarize the students with the Block Room
 - To show an actual performance of a pre-op block

GENERAL GUIDELINES

- This course will be uploaded and made accessible/available in UVLE at the beginning of the rotation (October 24, 2022 6 am) until Dec. 16, 2022 6 pm.
- The students are expected submit assigned outputs by December 16, 202– 6 PM. Late submissions will not be accepted.
- The students should coordinate with assigned faculty regarding output submission, grading, and feedback.
- The course coordinators can assist students in any concern not explained in the Course Guide.
 - Dominic D. Villa, MD, DPBA, FPSA
 - ddvilla1@up.edu.ph
 - Evangeline K. Villa, MD, DPBA, FPSA
 - ekvilla@up.edu.ph