

## Syllabus

### MS II Anesthesia Elective 2024-2025 summer, fall and spring period

This course will be offered during the summer months June, August and September 2024 and also in fall 2024 and spring 2025. Students will sign up for either period and complete the elective in the chosen time period. The summer elective will replace the former summer preceptorship. The format for all periods is identical and students will receive credit for either elective period.

#### Goals:

Introduction into clinical anesthesia practice by shadowing anesthesia residents, attending physicians, CRNAs and CAAs throughout their workday and focused discussion of important elements of anesthesia care.

#### Objectives:

At the end of the elective student will be able to

- 1 describe the different aspects of preoperative anesthesia assessment: anesthesia specific H&P, anesthesia specific physical exam incl. airway exam, explanation of anesthesia plan and consent, establishing rapport with patient
- 2 describe different anesthesia methods: general anesthesia, sedation, neuroaxial anesthesia, regional anesthesia
- 3 list medications commonly used for anesthesia induction and explain their purpose; explain induction steps for general anesthesia with an endotracheal tube
- 4 describe different methods to maintain anesthesia and maintain patient equilibrium under anesthesia, explain different intra-operative monitoring procedures and their purpose
- 5 discuss different methods and medications for postoperative pain control
- 6 explain common ventilator settings; list three common reasons for ICU admission

#### Scheduling:

The schedule will either be created by the students themselves or the Office for Academic Affairs.

#### Scheduling requirement:

One student per day in the OR, on Regional/PACU or ICU rotation. Occasionally two students can be present (needs to be confirmed with Dr Schmitz and the anesthesia administrator first) but one of these students should be either in Regional Anesthesia or ICU on these days. The schedule will assign specific days for the different anesthesia rotation. Example: Student a OR rotation dates:....., Regional Anesthesia rotation date:....., ICU rotation: .....

#### Start and end times:

OR rotation days: Students will report to the OR board and anesthesia board runner by 6:45 am on their respective days to be assigned to a specific anesthesia residents/Attending/CRNA. It is the responsibility

of the student to inform the board runner about the requirements (surgical specialty) they still have to fulfill.

Regional Anesthesia/PACU rotation day: Students will report at 6:30 to SASU.

ICU rotation day: students will report to the Neuro ICU at 7 am.

End time for each rotation day: students are expected to stay until 2-3 pm.

Changing assigned days for the rotation is not encouraged and has to be arranged early enough between the students taking in account the stipulations noted above. The Medical School coordinator, anesthesia administrator and Dr Schmitz need to be informed about these changes and provided with an updated schedule before the change occurs.

Students will receive sign-off sheets, these will be completed at the end of each day by the resident or attending physician they worked with. Alternatively, students can be signed off by Drs Schmitz, Brodie or the board runner of the day.

### **Clinical experience:**

#### Rotations:

Students will come six days from 6:30/6:45 until 14-15:00 am and shadow mostly residents, CRNA'S, CAAs and attending physicians.

Each day will be spend with anesthesia for a different surgical specialty or other area of anesthesia care:

OR: general surgery/trauma

OR: orthopedic surgery/ ortho trauma

OR: ENT/pediatric patients/ ophthalmology/

OR: Urology/GYN/OB

Pain: PACU and regional anesthesia

ICU: Neuro ICU

#### Focused discussions:

Each day students will also focus on a specific anesthesia topic:

Anesthesia preop evaluation and exam:

[How does an anesthesia preop assessment differ from a regular H&P, what are common questions?](#)

[Why airway exam, what is part of an airway exam?](#)

Anesthesia induction: drugs and procedures:

[Propofol, Etomidate, Lidocaine, Fentanyl, Rocuronium/Succinylcholine](#)

[General anesthesia, local MAC/sedation, neuroaxial anesthesia regional anesthesia](#)

Anesthesia maintenance:

[TIVA, inhalation agents; vasopressors, ASA Monitoring, BIS, nerve stimulator, a-line](#)

Emergence from anesthesia:

[Extubation criteria, common problems during emergence](#)

Pain management pre-, intra-, and postoperative:

[Neuroaxial analgesia, regional analgesia, if medication: non-opioid, opioids](#)

ICU:

[Reasons for ICU admission, common ventilator settings](#)

**Cap stone assignment:**Case study:

Every student will write an anesthesia case study about a patient that includes preop evaluation and assessment findings, anesthesia lab for the procedure, induction, anesthesia maintenance, emergence and recovery period with pain management. A template for the case study will be provided. Students will submit the case study together with the sign-off sheets to the department within 14 days after the end of the rotation. The entire study should not exceed one page and can be bullet points format.

Reflection:

Students will describe in a brief format (paragraph to half page) how their perspective about anesthesia has developed/changed by participating in the elective.

**Credit:**

To receive credit for the elective students have to participate in all six days, only one excused missed day can be 'made-up'. To be considered excused, students have to notify Dr Schmitz, the anesthesia administrator and the Medical School coordinator -Maureen Eregie per email before 7 am of the day they miss to attend. Unexcused missed days or more than 1 day missed will result in no credit given for the elective.

Student will have to submit their sign-off sheets and the completed case study within 2 weeks after the end of rotation to the anesthesia administrator (Alex Trevino). The anesthesia department will submit the list of students that successfully completed the elective to the Medical School.

**Sign-up:**

Sign-up and Elective period start and end:

Summer elective:

Sign-up starts now: students can schedule days June, August and September, no students in July.

Fall elective:

Students can sign up beginning of July, the fall elective will start in October and students can schedule their days until the end of the semester.

Number of students accepted for the Elective:

Summer: Maximum 10

Fall: Maximum 20

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