# Coverage for the Final Exam SOEN6431

**Exam type:** In person exam – room assignment will be posted on Moodle
**Exam location:** will be posted on Moodle.
**Exam date/time:** Please check - https://www.concordia.ca/ginacody/students/academic-services/graduate.html

*Closed book + closed notes* exam

**Important:** Please make sure to bring your student-id

**Exam style**
Similar to the assignments (especially 2-3) and midterm
Focus is mostly after midterm, **but slicing, clones will be included** in the final exam

**In general, for all the topics:**
Challenges/Limitations?
Benefits/advantages
Why?
=> more understanding of the problem domain, **less** memorization (note: this does not mean no memorization!!)

**Detailed topics:**

**Program slicing**
Static/Dynamic slicing/backward/forward

- Challenges
- Differences between techniques
- And obviously you have to be able to compute slices.

**Impact analysis**

- What is it
- Impact analysis at the source code level
- Impact analysis at the requirements level – why

**Testing**

- Black/white box testing

**Regression testing, ripple effect analysis**

- What is it and why?
- Test case reduction – techniques

**Clones**

- Different types
- Being able to identify clones

**DevOps**

**Traceability** (in general)– how is it beneficial, what are the challenges, why do we care?

**Large language models** in software engineering

**Software migration**

**General questions** – Software Maintenance and Program Comprehension – challenges/why is needed