

Natural Language Understanding, Generation, and Machine Translation

Lecture 30: Exam Review

Frank Keller

Week of 28 March 2022 (week 10)

School of Informatics

University of Edinburgh

`keller@inf.ed.ac.uk`

Using some material by Sharon Goldwater.

How the Exam will be Run

Content and Format

- The exam will cover all material in lectures 2–28 (excluding lectures cancelled because of the strike).
- It will contain 3 questions, each on a different topic. These questions are approx. equal weight, adding up to 50 points.
- Each subquestion will indicate how much it is worth.
- The exam is designed to take 2 hours; you have an additional hour for upload and to account for minor technical issues.
- The exam is on Thursday, 12 May 2022, 13:00–16:00 BST (UTC+1), please confirm at <https://exams.is.ed.ac.uk/>.
- The time is fixed; you will need to log in at the start time to have the full 3 hours.

Open Book Policy

- The exam is **open book**. You are permitted to use any pre-existing resources to help you answer the questions.
- You are **not permitted**, at any time during the exam, to:
 - directly or indirectly provide information about the exam to other students in the class, or post such information to any site that other students could access.
 - confer with other people or services about the exam or about any course-related material. This includes friends, family, other students, people on the internet, and paid or unpaid services.
 - impersonate another student on the course, or permit anyone to impersonate you, for the purposes of completing the exam.

Use of Gradescope

- We will use Gradescope for the exam. Please doublecheck that you can log on to Gradescope.
- However, unlike the class quiz, the exam will not be multiple choice. Instead, you will write free-form answers and upload these onto Gradescope.
- Your answers can be handwritten or typed. Handwritten answers need to be scanned and uploaded on Gradescope.
- Marking will be anonymous, so be careful not to include your name or matric number in your upload.
- There will be an opportunity to practice using Gradescope before the exam (uploading, submitting, etc).

How to Prepare

What to Revise

- Revise the content of the lectures.
- Study the readings and also the tutorial questions.
- If you haven't done the class quiz yet, do it as part of your exam preparation!
- Only the required readings are examinable, but the additional readings may reinforce concepts and can give you a feel for how to apply things to new problems.
- The exam will focus on analysis and synthesis. You will need to understand fundamental models (e.g., RNNs and attention) and how to apply them to new problems.

How to Revise

- Don't wait until the last minute. Study early and often. Research shows that spaced repetition is the most effective way to remember material.
- Don't rely on the open book. Pretend the exam is closed book, or that you have at most a single sheet of paper to write down all the information you need to look up.
- You will not have time to look up lots of information during the exam.
- Creating a single page of key information forces you to consider what is most important in the course, what you can remember, and what you need to write down.

How to Revise

- Study actively: Simply reading information is not a good way to remember or understand it.
- Work through examples, making sure you get the correct answer, and think about what questions we might ask related to that material.
- Ask yourself how different parts of the course connect to each other. What are the different themes? What are different ways to approach some of the tasks?
- Consider the types of questions we might ask, and how they would apply to different parts of the course:
 - Applying a method, model or concept to a particular situation.
 - Analysing, evaluating, or comparing one or more methods.
 - Synthesising knowledge to address a new situation.

How to Get Help

If you are stuck during exam revision:

- We will hold a Q&A session closer to the date of the exam.
- The TAs will hold office hours in the week before the exam.
- Questions on Piazza are welcome at any time before the exam.
- But we will turn off public posting on Piazza during the exam.
- Private posting will be allowed, use this only if you encounter a problem or an error in the exam.

How to Practice

- Practice exam-taking. Don't just think about your answers: write them out by hand, and give yourself time limits.
- Practice questions from the tutorial sheets – you may see similar questions on the exam.
- Practice questions from previous years' exams (<https://exampapers.ed.ac.uk>):
 - NLU+ 2020–21: 1, 2, 4.
 - NLU+ 2019–20: 1, 2, 3, 4.
 - NLU+ 2018–19: 1a–e, 2, 3a,b.
 - NLU 2017–18: 1a–c,e, 3.
 - NLU 2016–17: 1d,g, 2, 3.
 - NLU 2015–16: 1a,c,d, 3.
 - MT 2017–18: 1a,d–g, 2a–d,f,g, 3a,b,f.
 - MT 2015–16: 1a–e,g, 3a–c.
 - Earlier NLU and MT exams are not indicative current content!
- **No model answers are provided for previous exams.**

How to Sit the Exam

- You will be expected to answer all questions. There are no optional questions.
- Pay attention to the allocation of points. If a question is worth 1 or 2 points, a short answer is expected: a sentence or two.
- Read the whole exam and make a plan. Allocate enough time for each question.
- If you write out your answers by hand, make sure your writing is legible.
- If you use a word processor, don't waste time on typesetting and layout. Consider drawing diagrams by hand to save time.
- If you upload a scan, check it is of good quality and complete.

Good luck!