

Nano Intro course: Schedule Spring 2017

Veckodag	Datum	Tid	Plats	Innehåll
Mon	20 March	10-12	MA05	Presentations of projects
Tues	21 March	10-12	Fysicum K204 (Curie)	Informationssökning och källkritik, grupp A (Ahrenius-Lastow) (Annika Nilsson)
Tues	21 March	13-15	Fysicum K204 (Curie)	Informationssökning och källkritik, grupp B (Lazar-Åkeborg) (Annika Nilsson)
Wed	22 March	10-12	MA05	Introduction to neutron scattering and ESS (Tommy Nylander)
	23/03 to 15/05			Work on project
Tues	28 March	10-12	Fysikum F K404	Lecture on Nanobusiness (Line Lundfald)
Tues	4 April	10-12	Fysicum F K404	Lecture on Nanosafety (Tommy Cedervall)
Thu	13 April	17:00		Deadline for sending outline of report to your supervisor
Tues	25 April	10-12	Fysicum F K404	Lecture on Nano Ethics (Veronica Johansson)
Fri	28 April	17:00		Deadline for sending a first draft of the report to your supervisor
Mon	15 May	12:00 (noon)		Deadline for sending the report in pdf format to Christelle by email
Fri	19 May	9-17	E:B	Symposium

Project: Literature study

Goals:

Grasp the state of the research field

- Why is it important?
- What has been done so far
- What are the current issues/problems
- Identify future solutions/research directions

Work on writing and presentation skills

Elektronik/Fotonik

E1: LED (Ali Nowzari: ali.nowzari@ftf.lth.se). English

E2: Solar cells (Gaute Otnes: gaute.otnes@ftf.lth.se)

E3: Single electron transistors (Irene Geijselaers: irene.geijselaers@ftf.lth.se) English

E4: Transistorer från 2D till 1D (Johannes Svensson: johannes.svensson@eit.lth.se)

Material

M1: Nanopartiklar (Sara Thorberg: sara.thorberg@ftf.lth.se)

M2: Nanokatalys (Reine Wallenberg: reine.wallenberg@polymat.lth.se)

M3: Surface characterization methods (Andrea Troian: andrea.troian@sljus.lu.se)
english

M4: 2D and 1D epitaxi (Sudhakar Sivakumar: sudhakar.sivakumar@ftf.lth.se) English

Fysik

F1: Kvantprickar (Florinda Viñas: florinda.vinas@ftf.lth.se)

F2: Tunnling (Luna Namazi: luna.namazi@ftf.lth.se) English

F3: Nanowire-based lasers (Reza Jafari Jam: reza.jafari_jam@ftf.lth.se). English

F4: Josephson junctions (Chunlin Yu: chunlin.yu@ftf.lth.se) English

Biomedicin

B1: Microfluidics for cell sorting (Si Hoai Trung Tran: trung.tran@ftf.lth.se) English

B2: Nanowires for manipulating and probing living cells (Zhen Li: zhen.li@ftf.lth.se)
English

B3: Super resolution microscopy (Inga von Ahnen: inga.von_ahnen@ftf.lth.se) English

B4: Neuronal patterning and guidance (Si Hoai Trung Tran: trung.tran@ftf.lth.se)
English

Written report

- 6 pages max
- Title + author list
- Abstract
- Introduction
- Body
- Conclusion

Go to <http://awelu.srv.lu.se> for support on writing

Written report

Abstract

- Short summary of the report
- Should make people want to read the whole report
- 1-2 sentence on situating the research area
- Summarize your work
- 1-2 sentences on the implications of what you have found

Written report

Introduction

- Provide context/background (starts broad and then narrows down to the subject of the project)
- Provides the reader with a clear idea of the focus and aim of the text
- Gives the outline of the text (what will be presented, discussed, in what order)

Written report

Text body-Coherence

- Use subheadings (will help you to restructure the text to ensure a coherent structure)
- Coherence...there must be logical links between words, sentences and paragraphs
- Achieved by repeating key nouns, using consistent pronouns, using transition signal to link ideas, arranging your ideas in logical order
- See <http://awelu.srv.lu.se/grammar-and-words/coherence/>

Written report

Text body-use of paragraphs

- Structure the text in Paragraphs (can be many paragraph in one subheading)
- One idea/paragraph
- Start a paragraph by either leaving a blank line or indenting the first line of the paragraph
- Each paragraph consists of a topic sentence, supporting sentences, and a concluding sentence

Written report

Text body-use of paragraphs

- Topic sentence: presents the focus of the paragraph
- Supporting sentences: explain or prove the topic sentence
- Concluding sentence: sums up the arguments of the paragraph and can be a transition to the next paragraph

[http://patternbasedwriting.com/
elementary_writing_success/paragraph-
examples/](http://patternbasedwriting.com/elementary_writing_success/paragraph-examples/)

Written report

Conclusion

- Summarizes the main points of the text
- Should not contain any new info
- Finish by an outlook

Written report

References

- Use the same format throughout the report
- More tomorrow about finding and giving references with Annika Nilsson tomorrow

Written report

And of course:

- Link text and figures
- Each figure needs a figure caption
- If quoting another work: cite it!
- No plagiarism

Oral presentation

Powerpoint slides:

- 12 minutes (= 3min each) + 3 minutes questions
- \approx 1 slide / min
- 3-6 points/slide
- 1st slide: project title + your names
- 2nd slide: outline
- Use clear font not *something difficult to read*
- Use at least 24 pt size (otherwise not readable)
- Do not use pale colors (not readable)
- Give references (to the research you are mentioning and to the images you are using)

Oral presentation

When presenting:

- Speak clearly, loud, slowly and articulate
- Make eye contact with the audience
- Face the audience, not the wall
- Use your arms to help you convey a message
- Check TED.com for examples of good presentations

Oral presentation

Common errors:

- Speak not loud enough
- Speaking facing the screen
- Hands in the pocket

Oral presentation

Everyone can get nervous when presenting

Tips:

- Prepare your sentences
- Rehearse (alone and with the group)
- Try to focus on the interesting things you have to say
- Think that people in the audience are just like you
- Do not forget to breathe
- If shaking: put your finger tips together, contract and release several times

Questions?