

# Forum:Seminar papers/Biophysics/2. LF/2019-2020

## Seminar papers for the year 2019-2020

Group	Team	Topics
/Group 1	/Group 1/A	Liposomes and controlled drug delivery
	/Group 1/B	Influence of temperatures on human organism
	/Group 1/C	Biosignals (generally)
	/Group 1/D	Optics
/Group 2	/Group 2/G	X-rays in medicine
	/Group 2/H	Radioactivity
	/Group 2/I	Tissues from the biophysical point of view
	/Group 2/J	Biophysical principles in regenerative medicine
/Group 3	/Group 3/B	(does not attend)
	/Group 3/C	Eye from the biophysical point of view
	/Group 3/D	Scintigraphy: the gamma camera
/Group 4	/Group 4/G	
	/Group 4/H	
	/Group 4/I	Ultrasound and its medical applications
	/Group 4/J	
/Group 5	/Group 5/A	
	/Group 5/B	
	/Group 5/C	
/Group 6	/Group 6/G	MRI
	/Group 6/H	External beam therapy
	/Group 6/I	
/Prof. Caruana	/Poster Template	

The teachers for all foreign groups are:

- MartinKralovic (Martin Král'ovič)
- Divinr (Radek Divín)
- Tomsa (Jan Tomsa)
- Carmeljcaruana (Prof. Carmel J. Caruana)

For questions which would be of interest to everybody please use the MOODLE forum.

If you have any specific questions for Professor Caruana please email him on [carmel.j.caruana@um.edu.mt](mailto:carmel.j.caruana@um.edu.mt). The email subject should be 'Seminar Paper - your name and surname'

INSTRUCTIONS ON HOW TO WRITE WIKILECTURES CAN BE FOUND HERE :  
<http://www.wikilectures.eu/index.php/Help:Editing>

INSTRUCTIONS ON UPLOADING IMAGES AND MULTIMEDIA CAN BE FOUND HERE:  
[http://www.wikilectures.eu/w/Help:Images\\_and\\_multimedia](http://www.wikilectures.eu/w/Help:Images_and_multimedia)

The table for the Czech groups is here: Fórum:Seminární práce/Biofyzika/2. LF/2018-19#Přehled kruhů ([http://www.wikiskripta.eu/w/F%C3%B3rum:Semin%C3%A1rn%C3%AD\\_pr%C3%A1ce/Biofyzika/2.\\_LF/2017-18#P.C5.99ehled\\_kruh.C5.AF](http://www.wikiskripta.eu/w/F%C3%B3rum:Semin%C3%A1rn%C3%AD_pr%C3%A1ce/Biofyzika/2._LF/2017-18#P.C5.99ehled_kruh.C5.AF))

## Available topics

- Portal:Biophysics\_Practicals\_(2.\_LF\_UK)
- Wikiskripta (<http://www.wikiskripta.eu>) – the Czech version of Wikilectures
- Tests from Biophysics / Testy z biofyziky (<https://moodle.mefanet.cz/course/view.php?id=152>)

## Hints on writing your seminar paper (including seminar paper on

# practicals)

**Professor Carmel J. Caruana**

AT THE BEGINNING OF YOUR SEMINAR PAPER PLEASE INCLUDE THE FOLLOWING:

{{Check|Carmel|jcaruana}}

**VERY IMPORTANT** Aim for quality not quantity! A lot of copying and pasting without true understanding is easily detected by the examiner. Make sure you have some good diagrams. If it is copyrighted material, just describe it briefly in your own words, give the name of the author/s and year of publication and provide a link to it.

Your seminar paper should consist of the following parts:

**1. Introduction** (150 - 200 words)

- Start with a good definition of the terms in the title which shows that you have understood clearly what the title of your seminar paper is about!
- Explain the definition in more detail - as if you are explaining it to a colleague who does not know it.

**2. Importance in clinical medicine** (150 - 200 words)

- In which branches of medicine is it important?
- What is its role in practical medicine e.g., diagnosis, therapy, prevention...?

**3. BRIEF literature review** (400 - 450 words)

Say briefly what the literature says about it. Answer a few of the following questions:

- What are its advantages and disadvantages?
- How does it work?
- Are there any risks involved in its use (for patients and the clinical staff)?
- Are there ethical issues associated with the topic?

**4. Equipment** (number of words as necessary, BUT AVOID REPETITION)

Describe any equipment. Include images and well-labelled diagrams as necessary.

FOR PRACTICALS ONLY: Write a list of the equipment used in the practical (numbered list please). Take photos of the actual equipment using your smartphone.

**5. Techniques** (number of words as necessary, BUT AVOID REPETITION)

FOR PRACTICALS ONLY: Write a STEP-BY-STEP description of the methodology (numbered list please). Take photos using your smartphone.

**6. Conclusion** (100 - 150 words)

What future developments are envisaged in the area and what are the possible impacts on medicine?

**Reference List** Give 3 - 5 KEY references (not the first ones you come across but those which provide real good information and which you can recommend to your colleagues).

The following information should be given for each reference:

**Book:** name of at least one author or organization; title; edition; year; isbn

**Article in journal:** name of at least one author or organization; title; journal; pages; year; volume; issn.

**Webpage:** name of at least one author or organization; url.

(For more information on referencing go to <http://www.wikilectures.eu/index.php/Template:Cite/documentation>)

**WORD-LIMIT FOR THE SEMINAR PAPER**

I must emphasize that it's the QUALITY that counts - this means whether you have followed the structure in the 'Hints' or not. Word-counts below or above the word-limit are NOT ACCEPTABLE. If your word-count is below the word-limit it means you have not put enough work into it. Word-counts over the limit are also not acceptable - one of the things that you must learn at university is to choose what are the most important facts (what to include and what to leave out are important decisions which you must learn to make) and to summarise these according to the given word-limit (one of the techniques you must learn for research is how to write a research paper for a journal and such papers always have word-limits). You should ask yourself if I were in an exam and my time is limited what shall I include and what shall I leave out? The list of references is NOT part of the word-count, nor are diagrams and tables.

Before you submit your seminar paper go through each part and ask yourself - is ALL of this really about my topic or not? Did I go out of subject? Going out of subject is one of the worst things you can do at university because it shows that you cannot focus on your particular topic. You should ask yourself "Have I written something to be proud of and be of interest to my colleagues?"

# Hints on writing multiple choice questions (MCQ)

Professor Carmel J. Caruana

AT THE BEGINNING OF YOUR SET OF QUESTIONS PLEASE INCLUDE THE FOLLOWING:

{{Check|Carmel|jcaruana}}

The questions must be based on the material in the lecture notes.  
Each multiple choice question should have 4 answers only ONE of which is correct.

## EXAMPLE

Regarding x-rays:

- a. Their frequency is less than that of visible light
- b. They are used in Doppler methods
- c. They are ionising radiation
- d. When passing through the body are absorbed in soft tissue more than in bone

The correct answer is C.

Important please keep to short statements, use clear simple English and avoid complicated sentences.

# Hints on TRANSLATING multiple choice questions from Czech to English (MCQ)

Professor Carmel J. Caruana

AT THE BEGINNING OF YOUR SET OF QUESTIONS PLEASE INCLUDE THE FOLLOWING:

{{Check|Carmel|jcaruana}}

Please write these in a MS Word file first and send them to Prof Caruana for correction. Format the MS Word document as shown below.

Title of topic.

Use a table with the following headings:

Question Number	MCQ in Czech (copy and paste)	MCQ in English	Answer
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# Hints on writing a POSTER



PLEASE USE THE ABOVE DESIGN FOR YOUR POSTER

- To view an enlarged version: right-click on it > 'Open in new window' > left-click on the picture
- To download the actual Powerpoint template to use go to the Moodle page of the course - you will find the template under Wikilectures > Hints on writing a POSTER.

a) Please download the actual template from the Moodle page.

b) You should complete the powerpoint template for your topic. The leader should send it directly by email to Professor Caruana at [carmel.j.caruana@um.edu.mt](mailto:carmel.j.caruana@um.edu.mt) for feedback on how to improve it (name the ppt file as groupnumber\_title of poster\_DRAFT). This version will NOT be assessed.

c) Professor Caruana will send you feedback to improve the poster. You are advised to improve the poster as per the feedback given by Professor Caruana.

d) The final version for assessment should be sent to Professor Caruana (name the ppt file as groupnumber\_title of poster\_FINAL). This version WILL BE ASSESSED and you will be given a grade on this version.

e) The final version should also be saved as JPEG and uploaded to the group page.

If anything is not clear or if there are any problems the group-leader of the team should write to Professor Caruana at [carmel.j.caruana@um.edu.mt](mailto:carmel.j.caruana@um.edu.mt).