Immunology (September 3rd-October 2nd 2018
7,5 hp. (5MO96)

Course leader: Teresa Frisan teresa.frisan@umu.se
Laboratory assistant: Javier Avila-Cariño, javier.avila-carino@umu.se
Course administrator: Ingela Nilsson, ingela.nilsson@umu.se

ORGANIZATION: Department of Molecular Biology, Building 6L, Norrlands universitetssjukhus (NUS).

LECTURE HALLS
A103, NUS Building 6A
Thymine (Th), NUS Building 6K
Major Groove (MG), NUS Building 6A
Laboratory: A 109, NUS Building 6A

COURSE MATERIAL

• Material produced by the department (pdf lectures and video)

COURSE CONTENT

• Lectures
• Presentation of individual study assignment: MANDATORY!
• Laboratory work: ALL LABS ARE MANDATORY!
• Laboratory report: MANDATORY!

For the mandatory events, please inform TF immediately. In case of absence due to sickness. Attendance to lectures is strongly recommended.

IMPORTANT DATES

Th 27/9: Deadline for laboratory report (24.00 o’clock)
Th and Fr 27/9 and 28/9: Study assignment presentations
Tu 02/10: EXAM, Östra Paviljongen (09.00-13.00)
Mo 12/11: Re-EXAM, Östra Paviljongen (16.00-20.00)
Course Expected Learning outcomes

- Describe the structure of the immune system and its components
- Discuss how the immune cells develop, their activation and function, as well as the general principles of signaling in and between immune cells.
- Explain how the immune response is activated in different types of stimuli
- Discuss how the immune system acts in hypersensitivity reactions, transplant rejection, autoimmunity and infectious agents
- Describe general immune related techniques.
- Use the obtained factual knowledge in oral and written presentation.
- Plan and carry out the laboratory work in an independent manner as well as critically interpret the primary data
- Retrieve relevant information in scientific literature as well as present and discuss this in a larger group
Plagiarism

• Plagiarism is copying text, ideas or thoughts that are from somebody else but are not cited properly

• All written assignment will be automatically scrutinized for plagiarism

How to avoid plagiarism?

• DO NOT COPY TEXT FROM: say it in your own words
• Cite the reference from which the information has been taken
• If you copy part of a text directly you must “put it in quotes” and reference the text

See next page for more information
Cheating and Plagiarism

One of the goals with higher education studies is that you as a student can learn to analyze and solve problems on your own. You should be able to clearly present your analyses and ideas. By plagiarizing or cheating in some other way, you cheat yourself of the possibility to learn these skills.

Cheating is breaking the rules, which Umeå University views seriously. Not only is it embarrassing to be revealed as a cheater, you can be suspended for several months. During this time you can be required to pay back financial support that you have received.

What is defined as cheating?
Cheating is when one uses unauthorized help aids or in some other way tries to mislead on a test or when another type of task is being evaluated. There are several examples of what constitutes as cheating:

Plagiarism
Plagiarism is when one uses others' work or material and makes it appear as though they are one's own. Even a small part, for example, a passage or a diagram from a text that is taken from a book or from the Internet and is presented as one's own is considered to be plagiarism.

If you use the work of others without stating the source, then in the worst case you can be required to reimburse the person who owns the work. It is, of course, not permissible to purchase essays or other material on the internet or from someone else and turn it in using one's own name.

Cheat sheet and other unauthorized help aids
Sometimes it is permitted to use certain help aids during an examination. In such cases you will receive information about it in advance. To use unauthorized help aids on the other hand can be perceived as cheating. Unauthorized help aids can be, for example, cheat sheets, other notes, cell phone, personal digital assistant (PDA) or books.

Unauthorized collaboration
Collaboration between students is some-thing that is often encouraged by the teachers during university studies. In connection with an examination if you collaborate more than what is permitted, and for example, turn in a text or material that is more or less identical to someone else's, then this can be perceived as cheating. During an in-class exam it is, of course, not permitted to talk to other students either.

What are the consequences if you cheat?
Internet and in other sources in the subject that they teach. There are also automatic programs that are used to detect plagiarism. Teachers are used to reading material that students have written. In addition, your teacher likely knows from previous assignments the way in which you express yourself and reason. With that in mind, there is substantial risk that you will be discovered if you cheat.

Warning or suspension
If a teacher suspects that a student has attempted to cheat, then the teacher is obligated to report this to the university's Vice-Chancellor for further investigation. According to the Higher Education Ordinance the university may take disciplinary measures toward the student who attempted to cheat.

The consequence can be a warning or a suspension of up to six months. The decision to suspend is made by the university's Disciplinary Committee. The Disciplinary Committee is comprised of the Vice-Chancellor, a judge who is well versed in the law and representatives for the teachers and students. If the Disciplinary Committee decides to suspend you then you are not entitled to participate in any type of activity at the university such as instruction, tests or labs.

Withdrawn financial support
To be suspended from university studies is counted as termination of studies. During the time that a student is suspended, the right to financial support is suspended.

If financial support has already been dispersed for the period of suspension, then the student is required to pay this back. When a student is suspended the university informs The Swedish National Board of Student Aid.

How do you avoid cheating and plagiarism?
Cheating can be the result of stress and a strained study situation. Cheating can also be the result of ignorance about how one writes academic texts and what requirements are stipulated for scholarly work. However, it is not difficult to learn. Student Services offers lectures on this topic.

Follow the teacher's instructions
Be careful to follow the teacher's instructions in connection with receiving an assignment. The instructions can look different for different assignments. If you feel unsure about how an assignment should be completed, talk with the teacher concerned.

If you are absent during the introduction or on some other occasion when instructions are given then you yourself have to contact the teacher concerned and make sure that you receive instructions as to how the assignment should be completed.

Others' texts
Learn which rules apply when you use other people's material. It must be clear as to what are your own ideas and wording and what you have taken from other places. This holds true both for material that you take from books and that which you find on the Internet.

When you quote
• Copy the text exactly as it is written
• Offset the text within quotation marks
• State the source in the citation
• State the source in the reference list

When you paraphrase someone else's text
• State the source in the citation
• State the source in the reference list

When you summarize
• Summarize the text with your own words
• State the source in the text
• State the source in the reference list
AVOIDING PLAGIARISM

There are many helpful websites on the topic, such as http://owl.english.purdue.edu/owl/resource/589/01/http://www.utoronto.ca/writing/plagsep.html. It is strongly suggested that you visit one of these sites if you are in doubt of how to avoid plagiarism. The first tip is to understand what plagiarism means. Ignorance is not an excuse for having performed an illegal act.

Plagiarism as defined by Wikipedia

“Plagiarism is the practice of (dishonestly) claiming or implying original authorship of material which one has not actually created, such as when a person incorporates material from someone else's work into his own work without citing references for it.”

As defined by the Merriam-Webster Dictionary

“plagia-rize transitive verb: to steal and pass off (the ideas or words of another) as one’s own; use (another’s production) without crediting the source; intransitive verb: to commit literary theft: present as new and original an idea or product derived from an existing source.”

Adapted from Wikipedia

Plagiarism is not necessarily the same as copyright infringement which occurs when one violates copyright law. The copying of a few sentences for a quotation is fair use under copyright law, but, if not attributed to the true author, it is plagiarism.

Types of Plagiarism

1. Failing to cite quotations and borrowed ideas
2. Failing to enclose borrowed language in quotations marks
3. Failing to put summaries and paraphrases in your own words
4. Failing to obtain permission for use of figures from the internet

Intentional and obvious plagiarism, where an entire essay or research paper is copied from another source, is often blamed on stress or laziness, mixed with dishonesty about one's diligence. Accidental plagiarism is often the result of poor citation or referencing or of poor preparation, or a misunderstanding of plagiarism per se.

Avoiding plagiarism

Plagiarism is sometimes difficult to avoid in writing, because writers are not always consciously aware of the source of the wording, or the source of the idea. To ensure that a writer will avoid plagiarism,

1) Keep track of the sources used, and record them accurately.
2) RE-PHRASE AN IDEA IN YOUR OWN WORDS and properly credit the idea to the original author
3) One sentence from another source is plagiarism even if it is properly cited. The only exception is when you cite a famous expression within quotation marks, such as “Never in the field of human conflict was so much owed by so many to so few” (Winston Churchill, 1940)
4) Copy useful quotations with a proper source
5) When working with computer files, use the annotation or comment features of the software.
6) Use a reference management software to keep track of proper references for ideas used
### SCHEDULE (lectures, work assignment, tutorials, labs and exams)

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<td>Mo 03/09</td>
<td>13.30-16.00</td>
<td>Introduction to course and Immune cells and organs</td>
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<td>BCR, B cell development and activation</td>
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<td><strong>Introduction to Lab 1 and 2</strong></td>
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<td>T cell development and activation</td>
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<td>Lab 1: Blood cell staining and Lab 2 ELISA</td>
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<td>NK cells and Immunodeficiency</td>
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<td>09.00-18.00</td>
<td>Lab 3: PBMC isolation and immunostaining</td>
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<td>Flow cytometry analysis and lab report work/Assignment work</td>
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<td>Preparation lab report and assignment</td>
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<td>Tolerance and autoimmunity</td>
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**Week 40**

Teachers:

TF: Teresa Frisan
KL: Kristina Lejon
JAC: Javier Avila-Cariño