

Annual Evaluation Report – Department of Biomedicine

Course code:	BMED 381	Semester / year:	Spring 2016
Course name:	Biomedical Nutrition Physiology		
Course coordinator:	Livar Frøyland/ Trond Brattelid (until summer 2016) Tanja Kögel (from autumn 2016)	Approved: (admin.)	Studieleder IBM, Per Øyvind Enger
Date of report:	30.8.2016		

Introduction:

Short course description, including study program affiliation. Comments about follow up of prior evaluations.

Biomedical Nutrition Physiology (5 ECTS) is a course available for students who have obtained skills in biology, biochemistry, molecular biology, cell biology, nutrition physiology - or equivalent - on bachelor level, preferably completed with a degree.

The aim of the course is to train the students to evaluate the effects of food and food supplements at a cell biological and physiological level in a broader scientific context relating to health and disease.

The course aims to give the students a research-based introduction into biomedical subjects (biochemistry, molecular biology, cell biology, physiology) in connection with human nutritional physiology. Focusing on areas like metabolism, signaling pathways and gene regulation, basic mechanisms that involve and are affected by the diet composition will be explored. Students will also learn about the background of lifestyle diseases, genetic diseases, and the effects of undesired toxicants in the diet.

The course aims at developing skills necessary for independent, critical research interpretation within this field, i.e. reading, interpreting and discussing scientific articles, and presentation. In addition to attending the lectures, we will ask the students to read relevant scientific articles, to discuss them in a small group, and to present them in the form of a small essay, a short oral presentation and a poster.

In 2016, twelve students were registered for the exam while ten students were registered for attending the course. Among these ten students were three Master's students in Biomedical Sciences (MAMD-MEDBI), five visiting students through different international agreements with The Faculty of Mathematics and Natural Sciences (four) or The Faculty of Medicine and Dentistry (one), and two Master's students in Human Nutrition (MAMD-NUHUM).

For course description, visit <http://uib.no/course/BMED381>

STATISTICS (admin.):

Number of candidates registered for examination:		12	Number of candidates attended examination:		7
Grading scale	«Pass/fail»	Pass:	7	Fail:	-

COMMENTS ON THE GRADE STATISTICS:

The report of the course is compiled after the ordinary examination. For oral exams, the results are final, for written exams, the final grading distribution may differ slightly if contingent candidate appeals have not been processed yet.

Does not apply.

SUMMARY OF EVALUATIONS GIVEN BY THE STUDENTS

Course evaluation on "My space" (Mitt UiB), other evaluations, responses from the student representatives and/or others.

The evaluation quiz at My UiB was not opened properly this semester.

EVALUATION AND COMMENTS BY THE COURSE COORDINATOR:

Teachers comments:

Example: Comments about practical implementation, teaching and assessment methods, if necessary. Future changes/changes in progress, study information on the internet and my space, literature access, localities and equipment.

The former course coordinator informed that the current concept works well and the students learn much during the presentation assignments, but that there might be motivation issues during the lectures. Several teachers were reporting of unresponsive students, except those students assigned for the week's presentation.

Some students believe that the course provides easy credit, and are surprised by the amount of work an essay and poster presentation is. Wake-up occurs late during the course. They need to be made aware of that sooner.

PLANNED CHANGES/IMPROVEMENTS FOR THE NEXT TEACHING PERIOD:

As the new course coordinator, I, Tanja Kögel, would like to set up the teaching schedule as listed below, covering nutritional components first and then give an overview over the largest public health impacts known. Each lecture should introduce a larger topic, such as "vitamins" and then narrow down on (an) exciting example (s) (Titles might be changes slightly):

- 1) Introduction, double feature without student's presentation:
 - Assignments, ethics, how to read an article, expectations including active discussion, workload for essay and poster (Tanja Kögel, confirmed)
 - How to interpret statistics in nutrition: Central tests and pitfalls (Josef Rasinger, confirmed)
- 2) Vitamins and their role in development and inheritable epigenetics, example B-vitamines (Kaja Skjerven, confirmed)
- 3) Dietary fat/lipids and their role in inflammation (Øystein Sæle, confirmed)
- 4) Carbohydrates, sugar (Lene S. Myrmel, confirmed)
- 5) Proteins, malnutrition versus overnutrition (Bjørn Liaset, confirmed)
- 6) Essential elements, Jod and psychiatric responses (Marian Kjellevoid group, asked)
- 7) Undesired substances, their interaction with nutrients and the hormonal system (Tanja Kögel, confirmed)
- 8) Energy balance and metabolic flexibility (Mitochondria) (Karl-Johan Tronstad, confirmed)

- 9) Nutrition and cancer (Nils Halberg? To be asked)
- 10) Microbiome and nutrition (Irja Sunde Roiha? To be asked)

Thereafter:

- 1) Essay start-up: structure of a review article, repetition of process towards exam, emphasis on not to underestimate workload.
- 2) Roughly one month later: poster start up: How to prepare a poster, elevator pitch.
- 3) Roughly one month later: poster presentation/exam with sensor.

Colloquium:

Each teacher will depict one article to the students for preparation. Groups of 3-4 students will be asked to meet in a preparatory colloquium, self-organized, and prepare a 10 min presentation of the article, to be presented orally, consecutive to the respective lesson. All students should be the active presenter once, if more students than lectures, two students can share one presentation.

Discussion:

After the lecture and presentation, the subjects will be discussed. For enforced attention, the discussion will be more formalized than it has been before. The students that are not part of the presenting group will be asked to prepare three questions to the article. At least one of the questions has to be asked in the discussion by each student. Asking the same question as another student will not be acceptable. The asking student should indicate which part of the paper is addressed (introduction, methods, results or discussion).

We may consider asking the lecturers to prepare 3 multiple-choice questions, which the students get in the following week prior to the lecture. They will be easy to evaluate and could get a +/0/- grading. This system has been used to ensure attention in my German Alma mater: to pass some courses, we needed to have a + in the end, summed up. I suggest trying this in this round without impact on fail/pass, just as a feedback.

Essay:

No changes other than very clear information about the workload. The students will write an essay, ideally on a topic chosen together with their group for the master's thesis, which is not identical but related to the thesis topic. It is also possible to find a supervisor only for this assignment. The topic should integrate cell biology and/or physiology with nutrition and address a relevant challenge, based on publications within the chosen research area. The supervisor and topic should be agreed upon early during the course. The student and supervisor should meet twice, once to choose the topic and once to get feedback, plus some email-help with finding references and/or questions, if necessary. The essay must be delivered to the course coordinator at the given date for evaluation, where it will pass or fail. Failed essays will get one new delivery date. Form: 5 pages A4 without reference list, Calibri size 11, 2,5 margin. 1,5 line distance, 10 references, review article style. They will get about one month time to prepare.

Poster presentation/exam:

No changes other than very clear information about the workload. The students will prepare a poster about the same topic as the essay, taking into account feedback. The students will be introduced to the concept of the "elevator pitch". The poster will not be printed but screened by power point, and presented within 5 minutes, which is the exam, in the presence of a sensor.