

EMNERAPPORT – INSTITUTT FOR BIOMEDISIN

ANNUAL EVALUATION REPORT – DEPARTMENT OF BIOMEDICINE

Emnekode: <i>COURSE CODE:</i>	BMED360	Semester / år:	Spring semester 2018
Emnenavn: <i>COURSE NAME:</i>	<i>In Vivo Imaging and Physiological Modelling</i>	SEMESTER / YEAR:	
Emneansvarlig: <i>COURSE COORDINATOR:</i>	Arvid Lundervold	Godkjent:	Studieleder IBM, 30.07.2018
Rapporteringsdato: <i>DATE OF REPORT:</i>	2018-July-24	APPROVED: (admin.)	

INNLEDNING / INTRODUCTION:

Kort beskrivelse av emnet, inkl. studieprogramtilhørighet. Kommentarer om evt. oppfølging av tidligere evalueringer.

SHORT COURSE DESCRIPTION, INCLUDING WHICH STUDENTS/CANDIDATES MAY ATTEND. COMMENTS TO CHANGES BASED ON PRIOR EVALUATIONS.

In Vivo Imaging and Physiological Modelling (10 ECTS) is a course mainly offered to students with a background in physics, computer science, mathematics or statistics, on bachelor level. The course is also among courses that have been offered for PhD candidates attending the Norwegian Research School in Medical Imaging, <http://www.ntnu.edu/medicalimaging>

The goal of the course is that the participants shall obtain theoretical and practical knowledge on functional and quantitative in vivo imaging in man and animal using magnetic resonance imaging (MRI) and computer-based image analysis.

Only 4 students were registered for the course this semester, 3 Master's students in Biomedical Sciences (MAMD-MEDBI) and 1 Master student in Applied and Computational Mathematics (MAMN-MAB).

For course descriptions, visit <http://uib.no/course/BMED360>

For previous evaluation reports, please visit <https://kvalitetsbasen.app.uib.no/popup.php?kode=BMED360>

STATISTIKK / STATISTICS (admin.):

Antall vurderingsmeldte studenter: <i>NUMBER OF CANDIDATES REGISTERED FOR EXAMINATION:</i>	4	Antall studenter møtt til eksamen: <i>NUMBER OF CANDIDATES ATTENDED EXAMINATION:</i>	4				
Karakterskala <i>GRADING SCALE</i>	«A-F»	A:	B:	C:	D:	E:	F:
		1	2	-	1	-	-

KOMMENTARER TIL KARAKTERFORDELINGEN / COMMENTS TO THE STATISTICS:

Emnerapporten utarbeides når sensuren etter ordinær eksamen i emnet er klar. For muntlige eksamener er da resultatfordelingen endelig, men for skriftlige eksamener kan endelig resultatfordeling avvike noe om evt. klagebehandling ikke er fullført.

THIS REPORT IS PREPARED AFTER ORDINARY EXAMINATION. FOR ORAL EXAMS, THE RESULTS ARE FINAL, FOR WRITTEN EXAMS, THE FINAL GRADING DISTRIBUTION MAY DIFFER SLIGHTLY IF CANDIDATE COMPLAINTS/APPEALS HAVE NOT BEEN PROCESSED.

The final grade is based upon an oral presentation of a personal project (80%) in combination with a MCQ / Quiz test (20%). In order to pass, the students also have to get approved a midterm assignment "The kiwifruit segmentation challenge".

Grades were generally good (A and Bs). Students with little experience in oral presentation might suffer regarding grading (e.g. D), especially if they have other concurrent exams.

SAMMENDRAG AV STUDENTENE SINE TILBAKEMELDINGER / SUMMARY OF EVALUATIONS GIVEN BY THE STUDENTS

Spørreundersøkelse via Mitt UiB, annen evaluering, tilbakemelding fra tillitsvalgte og/eller andre.

COURSE EVALUATION ON MITT UIB, OTHER EVALUATIONS, RESPONSES FROM THE STUDENT REPRESENTATIVES AND/OR OTHERS.

The students were asked to give their feedback in a short survey at Mitt UiB. Some of these questions were Multiple Choice Questions (MCQ), while others opened up for the students to give their own opinion as written text. The attendees were asked MCQ's about the academic content, the organization and the educational level of the teaching, and to evaluate the total workload of the course. In addition to these, the students were asked to give their responses to the following questions:

- Course lectures: What was good, what was bad?
- What did you appreciate about the course?
- What did you find disappointing about the course?

The survey was open from 25 May until 1 June, while the oral exam took place 8 June. Information about the survey was given by an announcement on the course page at Mitt UiB when the survey opened, and a reminder came short before it closed.

2 of 4 students (50%) gave their responses this semester, representing 2 different study programmes. One of these answered only a couple of the first questions, and did not give any feedback in his/her own words.

With only 4 students in class, and sparse response it is hard to conclude.

Hvilken studentgruppe tilhører du? / Which group of students do you belong to?

Master in Biomedical Sciences	1 respondents	50 %	<div style="width: 50%;"></div> ✓
Exchange student from abroad		0 %	<div style="width: 0%;"></div>
Student at an other faculty	1 respondents	50 %	<div style="width: 50%;"></div>
Other		0 %	<div style="width: 0%;"></div>

Har du tatt tilsvarende kurs tidligere? / Have you had a previous courses in this subject?

Ja / Yes, at the Bachelor level		0 %	<div style="width: 0%;"></div> ✓
Ja / Yes, at Master's level		0 %	<div style="width: 0%;"></div>
Nei / No, never	2 respondents	100 %	<div style="width: 100%;"></div>
Annet / Other		0 %	<div style="width: 0%;"></div>

Hvordan vurderer du det faglige innholdet? / Do you find the academic contents of this course to be:

Alt for enkelt / Far too easy		0 %	✓
For enkelt / Too easy		0 %	
Passe / Average	2 respondents	100 %	
For komplisert / Too complicated		0 %	
Alt for komplisert / Far too complicated		0 %	

Hvordan vurderer du det pedagogiske nivået? / How do you rate the educational level of the teaching on the course?

Alt for dårlig / Far too low		0 %	✓
Dårlig / Too low		0 %	
Greit / Average		0 %	
Godt / High	1 respondents	50 %	
Svært godt / Very high		0 %	
No answer	1 respondents	50 %	

Hvordan vurderer du arbeidsmengden i emnet? / How do you evaluate the total workload of the course?

Alt for lite / Far to little		0 %	✓
For lite / Too little		0 %	
Passe / Average	1 respondents	50 %	
For mye / Too much		0 %	
Alt for mye / Far too much		0 %	
No answer	1 respondents	50 %	

Hvordan vurderer du organiseringen av emnet? / What do you think of the general organization/structure of the course?

Alt for dårlig / Far too poorly organized		0 %	✓
Dårlig / Too poorly organized		0 %	
Grei / Average	1 respondents	50 %	
God / Well organized		0 %	
Svært god / Excellently organized		0 %	
No answer	1 respondents	50 %	

The students were asked to tell us about what they found good, or bad, about the lectures...

Laboratorieøvelser (dataøvelser), hvor nyttige var de? / How useful did you find the laboratory exercises?

Unyttige / Not useful at all		0 %	✓
Lite nyttige / Somewhat useful		0 %	
Nyttige / Average		0 %	
Meget nyttige / Useful	1 respondents	50 %	
Svært nyttige / Highly useful		0 %	
No answer	1 respondents	50 %	

Hvordan vurderer du organiseringen av laboratorieøvelsene? / What do you think of the organization/structure of the lab exercises

Alt for dårlig / Far too poorly organized		0 %	✓
Dårlig / Too poorly organized		0 %	
Greit / Average	1 respondents	50 %	
Godt / Well organized		0 %	
Svært godt / Excellently organized		0 %	
No answer	1 respondents	50 %	

They were asked to specify what they found good and/or bad about the laboratory exercises...

Hva tenker du om nivået på forelesningsmateriell / utdelte artikler / kapitler ? / Did you find that the level of the course material was:

Alt for enkelt / Far too easy		0 %	✓
For enkelt / Too easy		0 %	
Passe / Average		0 %	
For komplisert / Too complicated	1 respondents	50 %	
Alt for komplisert / Far too complicated		0 %	
No answer	1 respondents	50 %	

Var det satt av nok tid mellom forelesninger?

Was there enough time scheduled between the lectures to read the assigned chapters in the text book?

Alt for lite / Far too little		0 %	✓
For lite / Too little		0 %	
Passe / Average	1 respondents	50 %	
For mye / Too much		0 %	
Alt for mye / Far too much		0 %	
No answer	1 respondents	50 %	

The 3 last questions was about the course; what they appreciate about the course, what they found disappointing, and what changes they would like to see in the course.

A few remarks from one of the students (that I will consider in planning the upcoming course, Spring 2019):

“- Among the handouts, most were very advanced (except the introduction to MRI physics, that was very easy to grasp), so perhaps textbook Chapters would be a better option. Labs could also be more thorough.”

“The professor is very engaged in the lectures, but there is a slight lack of organization to the lectures. The overall progression of the topics from lecture to lecture, however, are very logical.”

EMNEANSVARLIG SIN EVALUERING OG VURDERING / EVALUATION AND COMMENTS BY COURSE

COORDINATOR:

Faglæreres vurderinger av emnet. *TEACHER COMMENTS.*

Eksempel: Kommentarer om praktisk gjennomføring, undervisnings- og vurderingsformer, evt. endringer underveis, studieinformasjon på nett og Mitt UiB, litteraturtilgang, samt lokaler og utstyr.

EXAMPLE: COMMENTS ABOUT PRACTICAL IMPLEMENTATION, TEACHING AND ASSESSMENT METHODS, IF NECESSARY. FUTURE CHANGES/CHANGES IN PROGRESS, STUDY INFORMATION ON THE INTERNET AND MITT UIB, LITERATURE ACCESS, LOCALES AND EQUIPMENT.

I think the following reflection by one of the students is increasingly valid and important.

“The course offers a unique topic compared to the other BMED courses. The integration of medicine, physics and computer science makes an interesting course.”

and must be taken good care of. A few changes to improve the course is stated below, partly related to

“Topics are very interesting. However, it is sometimes unclear how much is expected to understand from the labs, and they often pass in a rush before time is taken to understand”

MÅL FOR NESTE UNDERVISNINGSPERIODE – FORBEDRINGSTILTAK / PLANNED CHANGES FOR THE NEXT

TEACHING PERIOD – HOW TO BE BETTER:

The organization and time schedule for the course is OK, I think. However, some more focus on the labs and accompanying code should be made.

Number of participants might vary from time to time, and 4 students is at the lower acceptable range. To promote recruitment two factors (in progress) might be important:

(i) transition from MATLAB to Python coding (Jupyter Notebooks are increasingly popular in the computational fields, including bioinformatics, biomedical imaging and computational biology, and can also make the labs better and more clear) and (ii) announcement through different channels, including MIC and the Mohn Medical Imaging and Visualization Centre. Also, incorporation of e-learning modules.